MILL SUPPLIES
THE MAGAZINE OF INDUSTRIAL DISTRIBUTION
DEC. 1934

OSBORN

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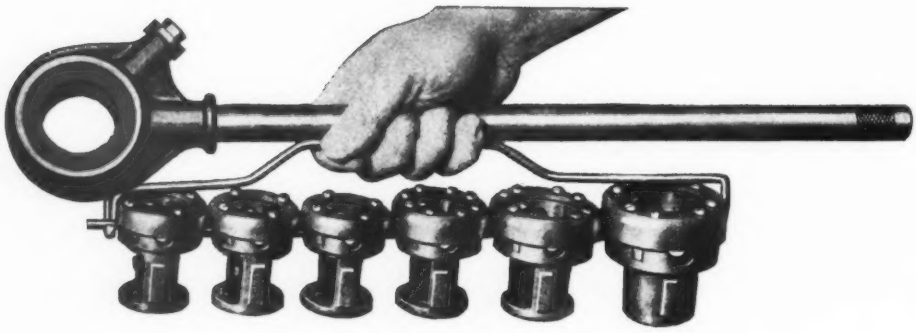

There are 12 good reasons why . . .
. . . the No. 3 BEAVER is a popular seller!

- The ratchet mechanism is fully enclosed. No danger of falling off a step-ladder due to "rounded teeth" on die head . . . which permit ratchet to slip.
- Four large oil holes permit easy oiling and immediate chip clearance. BEAVER die heads do not "gum up."
- The die segments are square in shape . . . no weak offsets.
- Die head carrier supplied free . . . no loose parts.
- Simple strong ratchet mechanism . . . freedom from trouble.
- Dies can be inverted for threading short spuds of pipe.
- Die segments are removable for regrinding . . . over and over again. Individual segments are interchangeable . . . you can replace an individual segment . . . or a complete set.
- Die heads available for threading BOLTS or RODS . . . 1/4 to 1 inch.
- The No. 3 BEAVER covers the entire range from 1/8 to 1 inch.
- Sold in units . . . you can buy any combination you wish.
- It is an ideal tool for threading brass, copper, aluminum or hard-rubber pipe . . . as well as wrought-iron and steel.
- Finally, because it is a BEAVER TOOL . . . backed by our 35 years of experience in manufacturing pipe tools . . . and our reputation for fair treatment of users and jobbers.

BEAVER

. . . a complete line of exceptionally good pipe tools . . .

THE BORDEN COMPANY . . . 293 DANA AVENUE . . . WARREN, OHIO

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MILL SUPPLIES

The Magazine of Industrial Distribution

JAMES A. CHANNON, Managing Editor

ALBERT E. PAXTON, Editor

HENRY W. YOUNG, Pacific Coast Representative

VOLUME 24 NUMBER 12

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MILL SUPPLIES is in its twenty-fourth year of service to the mill supply field

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WITHIN THIS SPREAD-BETWEEN THE POWER AND THE

"Gentlemen, your preventable power wastes may cost enough to pay your preferred dividend."

"MOST plants, gentlemen," said the man with the Red Book—"can cut their power costs at least twenty per cent, some as high as fifty per cent. Throughout industry, you can figure power costs at from four to ten per cent of total manufacturing costs. I am quoting a leading authority* when I say that therefore '. . . *manufacturing costs can be cut from one to five per cent . . . (and) the savings will in many cases exceed the entire net profit of the business.*' "

Who is the man with the Red Book? He may be a power engineer, a consultant, or a member of one of our Power Transmission Clubs.

He will tell you to forget about what you pay for power at the meter. It's in the spread between the meter and the machines where power costs are wasted and hidden profits lie. These losses can be controlled. They show up in the cost of power *delivered to the production machines* and that depends on the methods used to transmit power to the machines.

He will ask you to compare the investment cost per installed horsepower of small individual motors for Unit Drives and large motors for Group Drives—and to consider the carrying charges which must be added to your power bills (see graphs at right of which there are many more in the Red Book, sent upon request).

* *Power*

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WORK—IS A SOURCE OF PROFIT IN MANY PLANTS . . .

He will agree with you that Unit Drive with small high-cost motors is necessary for many machines and departments regardless of higher investment, maintenance and power costs. But he will point out that, where conditions permit grouping of machines with each *grouped production unit* powered by a larger, more efficient motor, Modern Group Drive not only offers definite advantages but important savings in first cost, maintenance cost and power costs. Although case studies prove this, he will ask for an opportunity to study your production requirements before submitting a planned recommendation.

Do not wait for this man to call—send for him. Ask us for a Roster of the Power Transmission Club membership. In the meantime, why not get a copy of the Red Book which is "a practical analysis of some fundamentals of Industrial Power Transmission." Write for it today.

POWER TRANSMISSION COUNCIL

(Sponsored by Mechanical Power Engineering Associates)

An association of producers and distributors of power, power units and mechanical equipment for the transmission of power.

370 LEXINGTON AVENUE, NEW YORK

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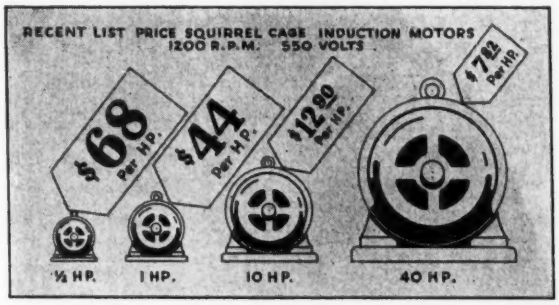
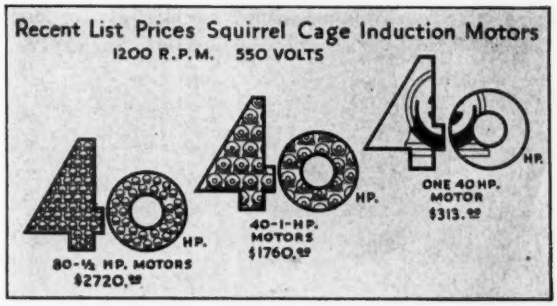
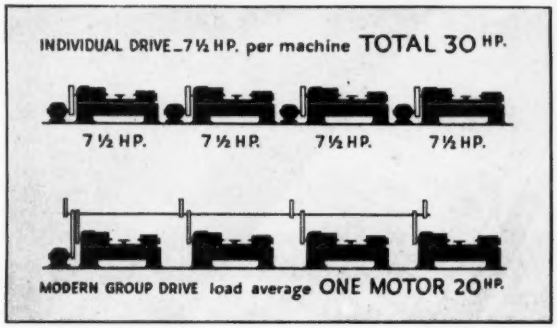
For example, consider the price of horsepower.



Then consider how the use of small motors affects your total horsepower investment.



Now see how much horsepower you actually need for a 20-horsepower job.



This advertisement (with this paragraph omitted) is appearing in Business Week, December 1st, Iron Age, December 6th, Electrical World, December 8th and December issues of Power, Factory, Mill & Factory, Cotton and Textile World. It is published in Mill Supplies in order that those engaged in the sale of equipment for the transmission and application of power may follow the progress of, and cooperate with, our educational program. The group photograph in this advertisement is a scene from a sound-film demonstration of Modern Group Drive. It is available, together with portable projection facilities, for showing to prospects or sales meetings through any of our 54 Power Transmission Clubs.

A POWER DOLLAR SAVED IS A PROFIT DOLLAR EARNED

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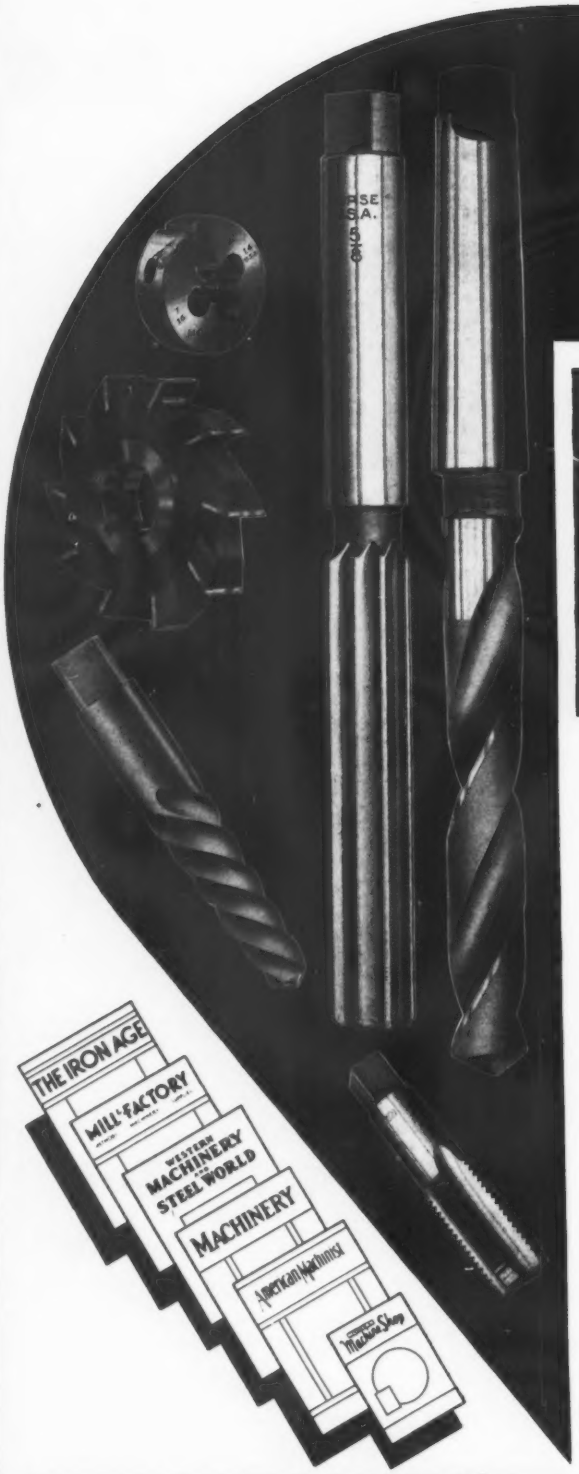

EASY TO SELL
HARD TO SELL AGAINST

There is a difference!

The odds are all in favor of the dealer who sells genuine Morse Tools. From the master mechanic up to the executive who does the purchasing the preference is for these well known tools with their well known ability to cut production costs.

Selling against Morse Tools means swimming against the tide, fighting an uphill battle all the way. The way to make small tools a profitable part of your business is to have Morse reputation, Morse quality and Morse advertising all on *your* side.

THE MORSE LINE
Includes
HIGH SPEED and CARBON

Chucks	Screw Plates	Cutters
Counterbores	Arbors	Taps and Dies
Mandrels	Sockets	Reamers
Taper Pins	Sleeves	Drills

MORSE
TWIST DRILL & MACHINE COMPANY
NEW BEDFORD - - - MASS., U. S. A.

NEW YORK STORE
92 Lafayette Street

CHICAGO STORE
570 West Randolph St.

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MILL SUPPLIES
DECEMBER • 1934
ALBERT E. PAXTON, EDITOR

Do Regional Associations Pay?

● ASK any of the 45 members of the Central States Mill Supply Club whether regional associations pay and your answer will be an emphatic yes. This organization, which has been functioning about a year, has made real strides toward effecting a workable program which is proving profitable to the individual members.

A feeling of fellowship has been developed in the Central States Group of which it can well be proud and with it have come improved business conditions throughout the territory, with a resultant gain in profits. C. H. Bradley, president, W. J. Holliday and Company, Indianapolis, expressed the sentiment of all members of this splendid regional association at its recent meeting when he said: "Any expense we are put to in supporting the Central States Mill Supply Club is negligible in the light of the benefits received."

No greater evidence of the keen interest, which distributors in this mid-western group have in their organization, can be submitted than the attendance record of its last general meeting held in Chicago, November 14. Out of a total of 45 member houses, 37 were represented and in practically every instance the operating heads of the business attended. The total number of people who were present at the session exceeded 50.

Discussions during the one-day meeting included such topics as code activities, profits versus volume, the value of cooperation between individual members and between local groups, manufacturer-distributor relationships, resales, transportation problems and credits.

Observing the progress which has been made in the Central States area, as a result of the regional association which has been set up, leads one to wonder why the same plan is not being used by distributors in all sections of the country. True, it takes a lot of work and cooperation to accomplish what the Central States group has in so short a time, but it doesn't take unusual powers of vision to recognize that the results to be obtained are worth far more than the price to be paid.

Getting a local group to functioning in the beginning is dependent upon the leadership of some far-seeing distributor or group of distributors. Once the organization is set up, however, and a definite program outlined, headway can be made rapidly. As Oscar Iber said at their most recent Central States meeting:

"I believe the best friends a mill supply distributor has are his fellow distributors."

If this is true, and we believe it to be, what better way is there to cultivate that friendship and make it pay dividends than through a closely knit association?

If all local sections were but organized and functioning as is the Central States group, this industry would enjoy an association foundation which not only would be invaluable to the local trading areas, but to the industry as a whole.

The Central States Mill Supply Club has blazed a trail of cooperation among its members which is definitely helping to put business in the territory it serves on a more profitable basis.

Distributors in other trading areas can well afford to look into the activities of this group with an eye to profiting from their experience.

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The Nut to recommend for heavy duty

HERE is a nut for which right now numerous tasks are waiting—a nut with threads so strong and tough that they take heavy wrenching stresses without stripping, rounding-out or "mushrooming."

The Bethlehem Hot Forged Nut is made by a new, exclusive process. It's a forging, with the strength and dense grain structure that forging gives. You can recommend it for any service calling for threads that can be depended on to stand up. It is decidedly the nut for heavy-duty applications.

The Bethlehem Hot Forged Nut is made at our Lebanon, Pa., Plant, a self-contained, complete Bethlehem division, devoted entirely to the manufacture of bolts, nuts and allied products. All sizes and types of bolts and nuts, special and standard, are made at Lebanon Plant by skilled workmen, under the careful supervision of experienced engineers . . . Bolts of carbon, alloy and corrosion-resisting steel. Bolts for high temperatures and pressures. All kinds of nuts, as well as the hot-forged; spikes, rivets, turnbuckles. All standard commercial items are regularly carried in stock at Lebanon Plant.

BETHLEHEM STEEL COMPANY, *Bethlehem, Pa.*

District Offices: Atlanta, Baltimore, Boston, Bridgeport, Buffalo, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Houston, Indianapolis, Milwaukee, New York, Philadelphia, Pittsburgh, St. Louis, St. Paul, Washington, Wilkes-Barre, York. *Pacific Coast Distributor:* Pacific Coast Steel Corporation, San Francisco, Seattle, Los Angeles, Portland, Honolulu. *Export Distributor:* Bethlehem Steel Export Corporation, New York.

BETHLEHEM STEEL

Bethlehem Bolts and Nuts

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MILL SUPPLIES

With Which Is Consolidated INDUSTRIAL DISTRIBUTOR AND SALESMAN And Combined With Mill Supply Salesman. Founded by Ernest H. Smith

for DECEMBER, 1934

VOLUME 24 - NUMBER 12

Timely Comment

● WHILE more and more distributors are specializing on various lines in one or two week periods, it is unfortunately true that most schedules involve a great deal of skipping around as to products. For instance, the line to be pushed this week may be abrasives, while next week pumps may be the product on which salesmen are supposed to put "the heat." Specialized effort is necessary to the future success of this industry, but haphazard planning may easily nullify all of the good effects which should result.

A Cincinnati distributor has what looks like a solution. He has divided all of the lines handled into four general related groups. To each of these he assigns a period of three months, during which time special sales effort is put on each product in the group. In this way, his salesmen concentrate their thinking along definite, related lines, education becomes simpler and sales contacts are made on the same man until a definite impression has been made. After all, it is a much simpler mental jump from plug-type valves to steam traps, than it is from sandpaper to steel pulleys.

● DISTRIBUTORS should be interested in knowing that the mechanical rubber goods industry, through its Code Authority, is endeavoring to set up a cost system which will determine just what is the cost of distribution on this line. This is a question of major interest not only to manufacturers but to distributors and out of this study should come some worthwhile facts and perhaps a cost method which will prove workable on other commodity groups.

● PINEHURST, North Carolina, has been selected as the site of the 1935 mill supply convention. The dates will probably be May 13, 14, 15 and 16. At the same time Pinehurst was selected for the coming year, sites for the conventions of the following three years were also determined. In 1936, it will be Atlantic City, 1937 Memphis and 1938 Pittsburgh.

● THE Joint Merchandising Committee is very active at the present time in presenting facts concerning the economic importance of the distributor to industrial buyers. Recently, meetings have been held with purchasing agents in Toledo, Dallas and Houston. W. E. Cain reports that new subscribers are being added right along and he has high hopes for the future. Alvin Smith, chairman of the committee, is taking a very active part in the work.

● THE Marketing Research and Service Division of the Bureau of Foreign and Domestic Commerce is being reorganized to make more adequate and current information available to American business men. The improved service is especially for the benefit of retailers, wholesalers, manufacturers and others engaged in the distribution of commodities.

Data which will throw more light upon the true extent of distribution costs as a factor in economic maladjustment are sorely needed and, in its new setup, the division will make every effort to supply this desired information.

● UNDER the leadership of Horace Armstrong, chairman, every effort is being made to stimulate interest in the "Product Group" activity sponsored by the American Association. This activity, formerly known as "Group-by-Industry" work, will be one of the high-lights of the Spring convention. Two distributors, H. E. Ruhf of Cleveland and Ernest Howell of Charleston, are collaborating with Mr. Armstrong on a special committee to direct this product work.

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WHERE AND HOW TO SELL

SELLING MATERIALS HANDLING EQUIPMENT

● TAKE a piece of paper and draw two horizontal lines about an inch apart. Put in three circles above and three below the lines. That will just about represent the layout that was put before H. W. Sharp of Portland, Oregon, when he was asked by general contractors if he could sell them on the idea of his furnishing the equipment for handling and storing the gravel for the concrete on the Bonneville dam.

In a few words, they told him that the gravel would reach there in 60 car trains. "We want 16,000 yards storage capacity," they said, pointing to the circles. "What equipment will you put in, how will you put it in and how much will it cost?"

That would seem like handing a distributor an order on a platter. But before he could get the order, Sharp had to design the plant from start to finish. To sell heavy materials handling equipment of this character, especially on government enterprises, the distributor does not as a rule have plans and specifications handed to him on which to bid. The planning of the plant falls upon his shoulders, because, as a rule every one of these projects is different, except in principle, and calls for individual handling.

How material is carried from the tunnel conveyor to the batch mixer. Here is the head end of the tunnel conveyor.

To gather an idea of the amount and kind of equipment entering into such an order, the following brief description will be of interest. As stated, Mr. Sharp designed the plant, and the H. W. Sharp Company, in conjunction with the Balzer Machinery Company, also of Portland, furnished every bit of the mechanical equipment, including the motors.

The Bonneville dam, one of the major power projects of the country now under construction, is located on the Columbia River about 40 miles from Portland. The sand and gravel to be delivered to the general contractors are crushed and washed in a plant on the Willamette River at Portland. They are then delivered in train loads to the site.

After arrival, the materials are dropped into a rail hopper, which has an apron feeder delivering to the bucket elevator. This elevator consists of 36-inch buckets bolted onto replacement chain.

It is elevated 80 feet to a cross-conveyor, which delivers it to a 30-inch conveyor 450 feet long, over the storage, which is approximately 16,000 yards in capacity. Material is distributed with a tripper.

Located under the storage, is a tunnel conveyor which delivers material as required to the conveyor that leads to the batch hopper.

From the geared motors, the power is transmitted by steel roller chain and cut steel sprockets. Back stops on the elevators and incline conveyors are of the electro-magnetic type.

Rubber belting is used and the belts are made endless by vulcanizing on the job. The H. W. Sharp Company even furnished the vulcanizing plant.

This plant has the necessary capacity for handling 250 yards of material per hour. The photographs here reproduced show the outstanding features, and indicate the size of the order for equipment secured by this dis-

Bucket elevator with steel roller chains handles 250 yards hourly.

Cross conveyor which runs from the elevator to storage.

tributor who had the necessary experience to design the plant. However, it is "old stuff" to Harry Sharp, who has designed and built many of the large materials handling plants in this territory, such, for example, as the Owyhee dam at Owyhee, Oregon.. To sell materials handling equipment of this order, of course, calls for extensive engineering and practical knowledge as the chief sales factor. It takes time and costs money to sell this kind of an order but the results are worth it.

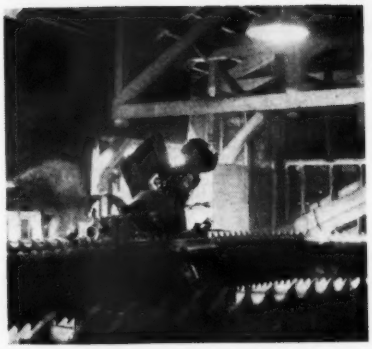
SELLING GRINDING WHEELS FOR SAW FILLING

● WE still say "filing," although in the great saw mills of modern times the saw teeth are ground almost to a razor edge by means of grinding wheels. The operation is wholly automatic, once the great hand saws are mounted ready for the grinder. Then tooth by tooth as the saw travels around, the wheel dips down once for each tooth sharpened.

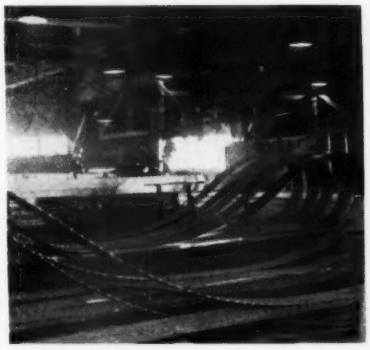
It will repay any distributor's salesman who is calling upon a saw mill to have a talk with the foreman of the filing room. There is equipment there with which he should familiarize himself, and particularly the grinding wheels, of which a large number are used in the course of a season. The number will not be as great as in the case of the mill shown in these pictures, for this is one of the largest in the world, being one of the mills of the famous Long-Bell Company at Longview, Washington.

If cut and laid out full length these great band saws would be 40 to 50 feet long. Dozens of them are laying by at all times for sharpening, and there are several of the automatic machines. The grinding wheels used are of a special abrasive material and special binder, although the speed is not excessive, being about 1800 r.p.m. But the kind and quality of these wheels is something that requires a bit of study and one place to make it first hand is the filing room.

These bandsaws, when at work, are under a stress or pull



A closeup view of the automatic grinding wheel working on a bandsaw. This wheel is run at about 1800 r p.m.



The saw filing room of one of the world's largest saw mills. In the foreground are saws ready for sharpening.

of 24,000 pounds. They travel at the rate of 2 miles per minute. In its lifetime, one of these bandsaws will travel 100,000 miles. By repeated grindings or filings, it will be worn down from about 13 inches in width to 8 or 1 inches when it will be scrapped. The middle part of this saw is longer than the edges, made so by repeated stretchings by means of a machine through which it is run, embodying rollers which literally iron out the middle of the saw blade. This form makes the saw hug the pulley as a leather belt hugs a cone-shaped pulley face.

QUESTIONS THAT OFTEN BOB UP IN SELLING BELTING

● MILL supply salesmen are frequently asked, "Does it pay to overbelt?" because users have so often been told: "Be sure to use belts and pulleys that are amply wide and thick. It doesn't pay to use narrow and thin belts."

The answer to the question, "Does it pay to overbelt?" is no! It does not pay to overbelt for the same reason that it doesn't pay to overdo numerous other things including overeating, overdrinking, overtalking, overexerting and so on.

It does not pay to underbelt either. To derive maximum service from belts, drives should be belted "just right," neither over nor under.

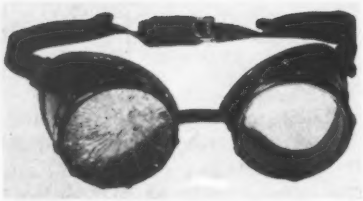
Another question frequently asked of salesmen is, "What factor of safety should be used in designing our belt drives?"

The answer to that question is: Belting is not given a factor of safety by our best belt drive designers. The aim is to keep stresses below the elastic limit at all times, on shock drives as well as on steady drives. It is considered all right for the stress to "almost" touch the limit of elasticity without actually hitting it, which, in engineering parlance, means that belting is virtually given a factor of safety of unity, perhaps the lowest safety factor applied to any engineering material aside from shear bolts and pins which are intended to break as soon as the dangerous load is reached.

WHERE TO LOOK FOR GOGGLE BUSINESS

● ONE does not have to look far when selling industrial goggles. It is hard to think of an industry where goggles are not a vital necessity though possibly not used. Why not? Simply because accidents have not yet happened, at least not in sufficient number to arouse the ire of the safety inspector of some casualty insurance company.

Strange as it may seem, both employer and employee hesitate to put these important items of safety equipment into use unless the matter is forcibly brought to their attention. Both must be shown the value—physical and financial—of putting into use the right type of goggles. It is useless to try to combat all eye haz-



It was well for Al Flanagan of the Graver Tank & Manufacturing Corporation that he had his goggles on that day in April, 1934, when he stopped a flying rivet head while cutting down a riveted tank at the Standard Oil Company plant at Louisville, Kentucky.

ards with any one type of goggle. The so-called all-purpose goggle is not effective under all conditions. A dust-type goggle, for instance, can never be considered as providing adequate protection against a sharp, forceful blow, any more than a grinder's goggle could be expected to give satisfactory protection from splashes of acids or other chemicals.

Where it is possible to make a study of the various types of work done in a plant, recommendations can be made to the proper management officials, who generally will accept them with much appreciation. The handling of chemicals, including acids, always presents eye hazards of a severe nature, either from fumes or splashing. Dust and small flying particles from the operation of power saws, planers, as well as grinding and polishing machines should be guarded against. Scraping and chipping work is also accompanied by constant eye hazards. The metal producing and working industries — each step, from mining to the completion of the finished product — present eye hazards of varied degrees of intensity from flying particles, chips, sparks, even injurious rays, all contributing their share.

Dangerous eye hazards accompany all welding operations, either electric or acetylene. The welder, himself, is exposed to a double hazard—sparks or splashes of metal and the injurious infra-red or ultra-violet rays. Strange, though it seems, an employer may readily provide protection for the welding operator, but will neglect utterly the helpers equally endangered by the blinding rays.

A knowledge of the causes of some of the common forms of eye injuries may serve as an aid in recognizing some of the possible eye hazards in industrial plants and give reasons for offering recommendations for their control and correction. Included among these various eye hazards are:

While county jails may not be classed as among the best paint prospects for distributors, they do offer sales possibilities. Frank Filer Company, Mercer, Pennsylvania, distributor, sold the Mercer County Jail on the idea of painting the place with aluminum paint. The photograph here shows the results—an attractive job for the jail and an attractive order for the distributor. Paint prospects are truly many and varied. Don't pass up any of them.

1. Cuts caused by knives, shears, glass, thin points of metal and other cutting substances.

2. Piercing wounds caused by sharp points of metal, wood, glass, round, thin objects such as pins, needles, nails, awls and other sharp-pointed tools, and sharp-pointed pieces of wood, wire or metals.

3. Contused wounds or bruises are usually the result of contact with some rough-edges or blunt objects, pieces of wood, iron, stone, glass, cork, shell, pottery or other materials thrown with force.

4. Cauterization, burning or searing may occur from contact with splashing or splattering of molten metal, acids, alkalies and other caustics.

5. Burns result from flames, sunlight, electric flashes, glowing rods, hot metal, ashes, slag, steam, water, oil, pitch as well as powder and other explosives.

6. Blind spot which interferes with visual acuity is the result of exposure to welding lights, glass work and furnaces. Burns may occur from close contact with molten metals, glass and hot fluids, electric and other types of furnaces. Burning of the lids, cornea, and even cataract and degeneration of the retina may result from such exposure.

While engineering skill has done much to minimize eye hazards through the redesigning of industrial machines and tools, until such time that hazards can be entirely eliminated, there is only one protection against eye injuries—the use of goggles. The observing salesman will run across many sales opportunities for goggles in his frequent visits through the plants of his customers.

Don't overlook the marine market in selling wire rope for it is a good one. Here R. W. McCaffry of the Marine Specialty & Mill Supply Company, New Orleans, is inspecting an installation with chief engineer Kenneth Morton.

UMI

A System For Figuring Costs By Commodity Groups

By

HARRY A. McARDLE
Franklin Hardware Company, Inc.
New York City

A distributor suggests a method for determining the cost of handling commodity groups for the purpose of determining the relative profitableness of various lines. This approach to the problem is sound since most selling prices are predetermined by manufacturers.

COMMODITY GROUPS

Group 1 Heavy Hardware

Bolts	
Chain	
Nails	(keg)
Nuts	(keg)
Rivets	(keg)
Spikes	
Washers	(keg)

Group 2 Shelf Hardware

Hinges	
Locks	
Lockwashers	
Nails	(package)
Nuts	(package)
Cotter Pins	
Taper Pins	
Rivets	(package)
Screws, cap, machine, set, wood	

Group 3 Iron and Steel

Angle Iron
Channel Iron
Round Iron
Welding Rod
Cold Rolled Steel
Steel Sheets

Group 4 Pipe and Fittings

Steel Pipe
Wrought Iron Pipe
Crosses
Elbows
Tees
Unions
Valves

Group 5 Machine Tools and Shop Equipment

Drill Presses
Grinders and Buffers
Hacksaw Machines
Lathes
Portable Electric Tools
Vises
Work Benches and Legs

Group 6 Transmission Equipment

Babbitt Metal
Bearings
Belting
Hangers
Pillow Blocks
Pulleys

Group 7 Construction Tools and Equipment

Axes
Brooms and Brushes
Chain Hoists
Handles
Jacks
Pails
Picks
Rope, Manila and Wire
Shovels
Sledges
Tackle Blocks
Wheelbarrows
Wrenches and Chain Tongs

Group 8 Small Tools

Chisels and Punches
Chucks
Cutters
Dies
Drills
Files
Hacksaw Blades
Hammers
Pliers
Reamers
Screw Drivers
Stocks and Dies, pipe and bolt
Taps
Wheels, Emery and Wire
Wrenches

CHART I — A suggested breakdown of typical mill supply items into commodity groups for the purpose of developing cost of handling.

● IN devising a system of distribution cost accounting, we are confronted with the problem of developing a method which will accurately reflect the cost incurred by the various commodities handled and still not involve so much detail work as to make its cost prohibitive. The problem of the variation among industrial distributors as to the accessibility of manufacturers' stocks, number of lines handled and type of service performed must also be considered. In this article a plan will be described which is believed to be practicable for an average mill supply distributor, selling from his own stock a reasonably varied line of industrial supplies. This may not answer the requirements of all distributors, but it may serve as a pattern from which each distributor may readily adopt a system that will suit his particular requirements.

The object of distribution cost accounting is to determine profit or loss on each line or commodity handled, or on individual orders or accounts. This is based on the knowledge that responsibility for operating costs varies widely between different lines of merchandise handled. When the commodity groups are not too numerous, the simplest procedure is to charge directly to a

EXPENSE ACCOUNT GROUPS

DIRECT EXPENSES:—

Commodity Group No. 1
Commodity Group No. 2
Commodity Group No. 3
Commodity Group No. 4
Commodity Group No. 5
Commodity Group No. 6
Commodity Group No. 7
Commodity Group No. 8

ALLOCABLE EXPENSES:—

MAINTENANCE

Group 1A	*Group 1B*
Rent	Insurance on Stock Inventory
Light, Heat and Power	Interest on Inventory Investment
Depreciation on Fixtures	
Insurance on Property	
Taxes on Property and Franchise	

MOVEMENT

Group 2A	*Group 2B*
Salaries, Stock and Shipping Dep't	Salaries—Office Employees
Freight Express and P.P. outward	Salaries—Administrative Executive
Trucking Expense	Stationery and Printing
Shipping and Warehouse Expense	Telephone, Telegraph and Postage
	Office Expense
	Accounting Expense

CONTACT

Group 3A	*Group 3B*
Salesmen's Salaries and Commissions	Bad Debts
Sales Executives' Salaries	Legal Expense
Advertising	Cash Discounts
Sales Expense	Interest on Accounts Receivable

ALLOCATING FACTORS

Group 1A—According to ratio of space occupied
Group 1B—According to ratio of average inventory investment
Group 2A—According to physical volume or weight ratio
Group 2B—According to number of invoice lines ratio
Group 3A—According to gross profits ratio
Group 3B—According to sales volume ratio

CHART II — Direct expenses are charged against a particular commodity group where possible. All other expenses are allocated to various groups according to the above factors.

Nov. 1, 1934.

Sold to:
Colonial Body Corp.
10-01 40th Ave.
Long Island City, N. Y.

Shipped to:
above

Order No.————
Invoice No.————

Quantity Order	Quantity Shipped	Wt.	Item	List	Ext.	Net	Mdse. Cost of Sales
2000	2000	208	5/16x3½ Com. Carriage Bolts	2.75 C	55.00		
			less 60%			22.00	16.50
1	1	22	½" Van Dorn Electric Drill	68.00 Ea.		68.00	47.60
10	10	260	lgths 5/16x1¼ Flat Soft Steel	3.25 C#		8.45	6.50
						98.45	70.60

FORM A — Sales sheet or copy of invoice with columns provided for weight and merchandise cost of sales.

commodity those costs incurred by that particular commodity, and to allocate indirect costs to commodities on some equitable basis. The nature of the business of distributing mill supplies permits but few instances where costs can be charged directly to a single commodity. Such an instance might occur where warehouse employees handle but one commodity such as iron and steel. The salaries of these employees should be charged to the direct expense account of the commodity that they handle in the general ledger. Our problem is therefore principally concerned with the proper grouping of commodities and expenses, and the selection of suitable allocating factors.

An analysis of distribution costs will reveal that they fall into three principal categories, aptly described under the heading of *maintenance, movement* and *contact*. These will be found to roughly correspond to the main divisions of production cost accounting namely, material, direct labor and overhead. There are, however, important differences between the two as to character of costs, aims of the analysis and details of method. In production costing, material and labor that can be charged directly to a particular job or commodity, constitute the greatest part of the total cost, whereas in distribution costing, few if any similar costs can be applied to one commodity group. The aim of production costing is to determine the cost of a job or bulk commodity in order to set a selling price that will yield a profit, *whereas distribution costing is concerned with determining profit or loss on commodity groups at prices which are set according to competitive conditions.* In production costing the finished product is a completed job or finished bulk commodity to which direct material and labor costs are charged, and overhead costs allocated on a predetermined basis, usually a basis of production units. The final product in distribution costing is a completed order, and the routine nature of order taking and order filling makes it difficult to draw the line where work ends on one commodity, and begins on another. Hence allocation of cost groupings to commodities must be made arbitrarily on some basis which is presumably equitable for each cost group.

It would entail a prohibitive volume of detail work to allocate each general ledger expense account separately to commodity groups using a different factor of allocation for each one. Under

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EXPENSES—ALL COMMODITIES 1934

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
DIRECT EXPENSES													
Com. Group 1													
Com. Group 2													
Com. Group 3													
Com. Group 4													
Com. Group 5													
Com. Group 6													
Com. Group 7													
Com. Group 8													
Total													
ALLOCABLE EXPENSES													
Group 1A											$ 500.00		
Group 1B											800.00		
Group 2A											700.00		
Group 2B											1200.00		
Group 3A											1000.00		
Group 3B											300.00		
Total											$4500.00		

FORM D — Yearly tabulation of expenses by months, grouped in accordance with listings on Chart II.

PROFIT AND LOSS SHEET 1934 Commodity No. *1*

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Sales											$2500.00		
Mdse. Cost of Sales											2200.00		
Gross Profit											300.00		
Direct Expenses													
Allocable Expenses													
Group 1A											75.00		
Group 1B											96.00		
Group 2A											98.00		
Group 2B											120.00		
Group 3A											60.00		
Group 3B											30.00		
Total—Direct and Allocable Expenses											$479.00		
Net Profit or Loss											$179.00		

FORM E — Yearly commodity profit and loss sheet, tabulated by months. One such form is used for each commodity group.

each of the headings of maintenance, movement and contact, however, will be found two divisions of costs that because of their similarity of expense incurring factors, can be grouped and allocated to commodities with a fair degree of accuracy. Chart 2 suggests a possible grouping of expense accounts.

The costs grouped under "maintenance" are those expenses which would be incurred in setting up a business establishment before any business is transacted. This would incur cost in two ways; first because of the physical facilities that have to be provided, secondly by reason of investment of capital in merchandise. The first group of expenses (1A) should clearly be allocated to commodity groups on the basis of amount of floor space occupied by each commodity group. The second group of expenses (1B) should be allocated to commodity groups on the basis of average inventory investment in each commodity group. An equitable comparison of costs by commodities demands that the commodity requiring a greater investment should be made responsible for earning interest income on that investment, and the commodity requiring no investment be relieved of that responsibility, whether the capital is borrowed or owned. For this purpose an account should be set up in the general ledger under the heading, Interest on Inventory Investment. This account should be charged at the end of each month with the calculated interest on the total amount invested in merchandise in stock, and credited with the calculated interest on the total amount of accounts payable outstanding. If the capital invested is owned, and the management does not want this item to appear in financial statements as an expense, an offsetting debit and credit could be made to a nominal interest account, and both accounts closed out at the time the books are closed.

The costs grouped under "movement" are the physical and clerical expenses necessitated by the movement of commodities into the hands of customers. The first group (2A) should be allocated to commodity groups on the basis of the physical volume of goods handled. Were all commodities packed in a similar manner a standard case or package might be selected as the basic unit of allocation. In the mill supply business, however, the variety of methods of packing different commodities precludes the use of this method, and the only simple and yet fair basis of allocation seems to be according to weight. In order that small orders will bear a fair proportion of the cost of physical handling which they incur, a minimum unit of weight could well be selected, and all orders below this minimum would be calculated at the minimum weight, (Continued on page 70)

Commodity Group No. *1* — Month of *November*

Space Occupied	Average Inventory	Weight	Invoice Lines	Gross Profit	Mdse Cost of Sales	Sales
1500 sq. ft.	$ 6000	208	1	$ 5 50	$ 16 50	$ 22 00
1500	6000	7000	500	300 00	2200 00	2500 00

FORM B — Monthly commodity tabulation sheet on which are summarized details from Form A. One such sheet is used for each commodity group.

COMMODITY ANALYSIS SHEET — Month of *November*

Commodity Group Number	Space Occupied (Sq. Ft.)	%	Average Inventory (Dollars)	%	Weight (Pounds)	%	Invoice Lines (Number)	%	Gross Profit (Dollars)	%	Mdse. Cost of Sales (Dollars)	%	Sales (Dollars)	%
1	1500	15	$6000.00	12	7000	14	500	10	$ 300.00	6	$2200.00	11	$2500.00	10
2	500	5	5000.00	10	5000	10	800	16	800.00	16	2200.00	11	3000.00	12
3	1000	10	2500.00	5	6000	12	250	5	100.00	2	1400.00	7	1500.00	6
4	1200	12	4000.00	8	5000	10	500	10	200.00	4	1800.00	9	2000.00	8
5	2000	20	9000.00	18	4000	8	350	7	900.00	18	1600.00	8	2500.00	10
6	1200	12	6000.00	12	7000	14	400	8	600.00	12	2400.00	12	3000.00	12
7	1800	18	7500.00	15	10000	20	700	14	500.00	10	4000.00	20	4500.00	18
8	800	8	10000.00	20	6000	12	1500	30	1600.00	32	4400.00	22	6000.00	24
Totals	10000	100	50000.00	100	50000	100	5000	100	5000.00	100	20000.00	100	25000.00	100
Allocating factor	1A		1B		2A		2B		3A				3B	

FORM C — Monthly analysis sheet for all commodities to which statistics from Form B are transferred.

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WELDING CLINIC FEATURES BUFORD BROTHERS EXHIBIT

Show attracts 1200 visitors in four days. Registrations show some to have come from 300 miles. Manufacturers' displays attract widespread attention and help educate Buford salesmen.

John Norton, of the Buford organization, who planned and carried out this highly successful exhibit.

● BUFORD BROTHERS, INCORPORATED, Nashville, Tennessee, held a highly successful industrial show November 7, 8, 9, and 10. Cooperating with this distributor in putting on the exhibition, the following manufacturers built attractive and interesting displays and booths: Buffalo Pumps, Incorporated, Kay and MacDonald, Incorporated, Butler Coal Stoker Manufacturing Company, Barber-Colman Company, Rust-O-Leum Corporation, Jenkins Brothers, Clipper Belt Lacer Company, Johnson Bronze Company, Henry Disston and Sons, Incorporated, Allen-Bradley Corporation, Louis Allis, Page Belting Company, Black and Decker Manufacturing Company, A. Leschen and Sons Rope Company, De Vilbiss Company, Penberthy Injector Company, Manhattan Rubber Manufacturing Division of Raybestos-Manhattan, Incorporated, Imperial Brass Manufacturing Company, Carrier Engineering Corporation, Globe Battery, Economy Fuse and Manufacturing Company, Sun-Glo Lamp Works, Greenfield Tap and Die Corporation, Alemite Corporation, A. S. Boyle Company, Linde Air Products, and Cincinnati Plastic Wood Company.

As a visitor entered the building, he was met by two attractive young ladies who asked him to fill out a registration card. From these cards, Buford Brothers have definite data on each visitor—his name, address, firm name and position, which will certainly be used to good advantage by their salesmen.

Registering finished, the visitor was then greeted by John Norton (the man responsible for the success of the show) or one of the other Buford salesmen who explained that the company was holding the exhibit to demonstrate that it carried stocks of supplies necessary to keep plants running and, with the help of its sources of supply, to point out the features of applications of those products.

Looking at the various displays, a (Continued on page 81)

If it were not for the fact that each guest was registered, it might well be assumed that many had returned again and again to be greeted by Mildred McCandless, Carl Gabel and Nan Clingan, all of the Buford staff.

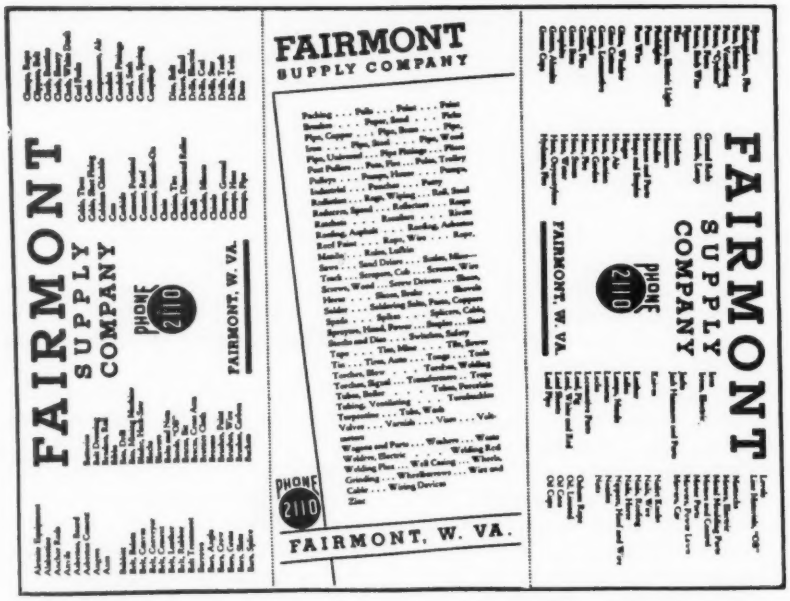
W. M. Virgin, Page Belting Company, Lloyd Smith, manager, Buford Brothers, and Jim Martin, Jenkins Brothers, snapped during a temporary lull.

The welding exhibit put on at regular intervals during the show attracted intense interest. See if you can find a single pair of wavering eyes in this unposed snapshot.

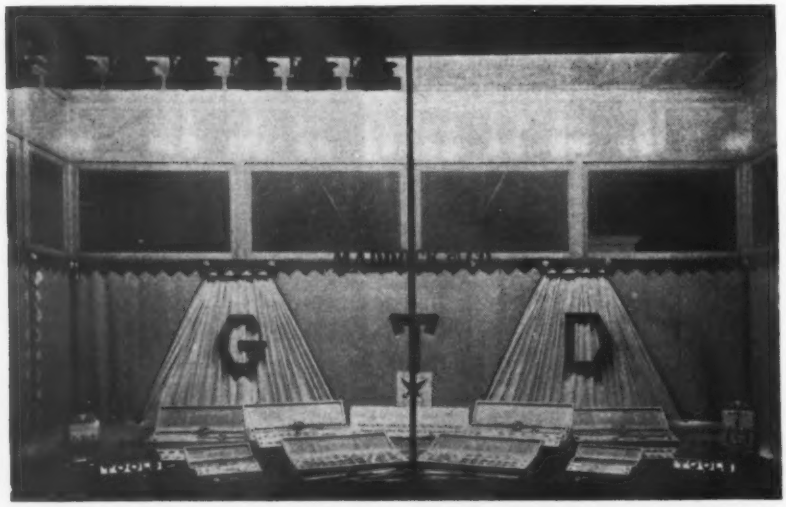
TRUMBULL TO HOLD CLINIC

● THE TRUMBULL MANUFACTURING COMPANY, Warren, Ohio, is planning a mill supply clinic to be held on December 7 and 8.

Among the exhibitors will be: American Asphalt Paint Company, Federated Metals Corporation, Clipper Belt Lacer Company, Republic Steel Corporation, Holo-Krome Screw Corporation, Eagle-Picher Lead Company, United States Rubber Company, Goulds Pumps, Incorporated, Linde Air Products Company, American Brass Company, Delta File Works, Stanley Electric Tool Company, Grinnell Company, Charles A. Schieren Company, Youngstown Sheet and Tube Company, Behr-Manning Corporation, Johnson Bronze Company, Victor Saw Works, Incorporated, National Twist Drill and Tool Company, Winter Brothers Company, William Powell Company, Upson-Walton Company, Borden Company, Union Drawn Steel Company and Marshalltown Manufacturing Company.



A series of three blotters (note perforations) used by the Fairmont Supply Company, Fairmont, West Virginia, as a sales promotion piece. Note that list of products handled is divided among the three. Blotters have an advantage over many types of mailing pieces due to their recognized usefulness and to the fact that they are looked at time after time.



Percy Maddock can well be proud of this well-arranged window featuring screw plates. Distributors who desire to display similar items should note the effect arrived at by the use of a few cents worth of crepe paper in contrasting colors.

STANDARD EQUIPMENT USES FLYERS

● FOUR-PAGE flyers, called "Memo-Grams," have been used successfully by the Standard Equipment and Supply Corporation, Hammond, Indiana, to build sales. These are sent to customers and prospects monthly.

Forty or fifty items of supplies and equipment are featured in each issue. Besides an illustration and short description, price information is included for each of the above.

Lawrence G. Puchta Dies

Former vice-president of The Queen City Supply Company taken suddenly by death at the age of 39, the night before his election as State Senator of Ohio

● THE many friends of Lawrence G. Puchta, formerly vice-president, The Queen City Supply Company, Cincinnati, and son of George Puchta, dean of the supply industry, were shocked to learn of his untimely death November 5.

Larry was taken sick with a cold on October 29. Almost immediately, the cold developed into pneumonia which proved fatal eight days later.

At the time Larry was taken sick, he was just finishing up his political campaign for State Senator. Despite the fact that Larry passed away on election eve, he was elected the following day, being one of the few successful republicans to survive the Democratic landslide.

The Republican Executive Committee lamented Larry's death in the following statement:

"We profoundly regret the death of Lawrence G. Puchta, candidate for State Senator on the Republican ticket.

"He was a young and successful business man who had been prevailed upon by our nominating committee to make the substantial sacrifice involved in serving in the Ohio legislature. His death is most untimely at the threshold of a promising political career."

Born in Norwood, Ohio, 39 years ago, Larry attended the public schools in Norwood and Cincinnati and was graduated later from the University of Michigan.

After finishing at Michigan, he entered The Queen City Supply Company where he eventually became vice-president. Not only was he active in the affairs of his own business, but also in association matters. He served for some time as chairman of the Joint Merchandising Committee at the time it was just beginning to make progress. He also served on the Committee of Simplified Practice of the National Supply and Machinery Distributors' Association. A year ago, Larry retired from business because of ill health.

L. G. PUCHTA
1895—1934

Larry was one of the first 12 Cincinnatians to volunteer for service in the world war. He entered the service at the Officers' Training Camp at Fort Benjamin Harrison. Later, he was transferred to Fort Monroe. Just before he was to receive his commission, he was found to have a weak heart and was honorably discharged.

Returning to Cincinnati, he drilled the Home Guard for a time. Then he applied for service in the Red Cross, Y. M. C. A., Canadian and British Armies, but was turned down in each instance. His application to the U. S. Navy, however, was accepted and, after serving in the transportation service for a short time, he was transferred to the Merchant Marine. At the end of the war, after having served for more than a year in the Merchant Marine, he was commissioned a Third Officer.

Following his discharge, Larry returned to the supply business where he rounded out 17 years of service before retiring.

He was a member of the Walnut Hills Lodge F. & A. M.; Bentley Post of the American Legion and Zeta Psi Fraternity at the University of Michigan.

He was a brother-in-law of George H. Feltes, president and treasurer, and Richard C. Feltes, secretary of The Standard Electrical Tool Company of Cincinnati.

Larry is survived by his father, George Puchta, one of the most beloved men ever connected with the mill supply business and a former mayor of Cincinnati, his wife, Nellie Feltes Puchta and two children, Georgianna and Lawrence C. Puchta.

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Salesmen I Have Observed

A Woman buyer takes stock of salesmen who have called on her

By ADA C. LEWIS
Buyer, Cutler-Hammer, Incorporated, Milwaukee

● I HAVE been in the buying department for so long, interviewing manufacturers' and distributors' representatives that it no longer occurs to me that I am an "oddity." In most instances, the same representatives have been calling on me for years and years and they have become thoroughly accustomed to the idea of calling on a woman buyer. They take it for granted that I am fully as concerned with the technical details of an item as any man would be; also that I am equally as concerned about saving money for Cutler-Hammer.

Even in the matter of courtesy, I have had occasion to discover that I am no more "squeamish" than the average man. As an example, I recall a recent telephone call from the sales manager of one of the companies from whom we buy. He had sent around a new salesman the previous day. He was a young college graduate, and the sales manager wanted to learn, first hand, about the impression he had made. "Did he take off his hat?" was the first question. "You see," the sales manager went on, "he has a habit of coming into my office with his hat on, and the other day I gave him a lengthy lecture on the importance of respect." I replied that the lecture had evidently been taken seriously as the young man was most courteous in every way.

Of course, you still meet an occasional salesman who forgets to remove his hat and cigar, and it is most difficult not to let his lack of manners prejudice you against his lines and his company. Just the other day one of these men called on me. After he had introduced himself, I said, "Now if you will take your hat off and sit down we will talk this thing over." That seemed to me like a feline thing to say, but as one of the buyers of Sears Roebuck said recently, "It is almost impossible to give an order to a man you do not like." Apparently the little niceties of conduct, courtesy, neatness, friendliness, and so on seem to influence masculine as well as feminine buyers.

About six months ago, a man whom I had never seen before, slapped his gloves down on my desk, banged his derby, and demanded in important tones, "Why aren't we getting more business from your company?"

"Did someone tell you to say that?" I asked.

"Before I left," he said, "I obtained records of the purchases of all the accounts on my territory, and I find that Cutler-Hammer shows up very poorly."

"Well if you will go back to your office and look up the records again, you will find that our orders are not only sizable, but they have been consistent over a period of many years."

His chin fell.

"And what's more," I went on quietly, "don't ever slap your accessories on a buyer's desk and try to wax dramatic when you are not sure of your facts."

Sometime later he came in again and said that he appreciated the advice and is careful now always to know what he was talking about before making sweeping statements.

Then there was the salesman, Mr. Cohen, by name, who left one of his grinders in the plant for a trial. We did give it a very fair trial and found that it did not measure up to the one we were using. When we told him the result of the test he was indignant. "Do you think you have been fair with me? Do you think that's the way to do business?" And with each question he became more excited and more sarcastic. Of course, he was promptly and firmly requested to leave and he has never since been given a similar opportunity.

A few salesmen, like Mr. Cohen, fail to appreciate that we dislike turning a man down. It is almost as unpleasant for us as it is for him. We would lots rather say, "The test on your product was most satisfactory,

Buyers Will Listen

● "The only justification of a buyer's existence is ability to save money for the company. Any $20.00 a week clerk can write orders from requisition blanks, but it takes more than that to buy wisely and economically. Hence the salesman who can point the way to new economies need never worry about getting a satisfactory hearing with the buyer."

and we will place an order with you on the first of the month." Where we do have to turn a man down, we are always hoping that the next time we will be able to buy from him, especially if he says, as one salesman recently did, that he appreciated the courtesy we showed him in permitting a trial in the plant and was sorry that his product did not exactly fill our needs. However, he hoped that sometime we would be able to get together on another item. And believe it or not, we are hoping the very same thing.

As I see it, the only justification of a buyer's existence is ability to save money for the company. Any $20-a-week clerk can write orders from requisition blanks, but it takes more than that to buy wisely and economically. Hence the salesman who can point the way to new economies need never worry about getting a satisfactory hearing with the buyer.

The salesmen we are really glad to see—and I believe all buyers will agree with this statement—are those who state their business in a concise and interesting fashion and then leave immediately. Knowing "when to leave" is perhaps the greatest art in successful selling.

There are several industrial distributors from whom we buy so regularly that their calls have almost become courtesy visits. That is, they come in merely to let us know that they appreciate our business, and to inform us of any new products or any changes in price. We are always glad to see these men as they never outstay their welcome.

Not All Industrial Buyers Are Men

● Many of the country's foremost buyers are women, but usually their buying activities are linked with products other than industrial. Here, however, is a successful woman buyer for a large industrial concern—a woman who has interviewed countless salesmen of industrial supplies and machinery. In this article, she sizes up some of the salesmen who have called on her, at the same time passing along valuable sales pointers to men out on the "firing line."

I often wonder whether negative selling is the fault of the salesman or his sales manager. For instance, there is one man who comes in here regularly with a voluminous catalog and about a dozen supplements. First he will ask us how much we buy of such an item in a year's time. That means I have to look up our year's purchases in the file. Then he will give me a sales talk on that item and try to show us where we would be money ahead by purchasing it through him. After about the tenth item, you can appreciate that the performance becomes a little tedious. If I did not stop him, he would wade through the entire catalog and all the supplements as well! After each of his visits, it always occurs to me to wonder if that is his own method of selling or whether the sales manager has given such instructions. I do think it is wise for a salesman to bring his catalog in and discuss perhaps two or three items, but it is impossible for a buyer to digest too many items at one sitting.

When I first began purchasing, it seemed to be a popular habit to knock one's competitors. Everyone did it. Now, that is a thing of the past. Salesmen praise their competitors if they are referred to, and then immediately resume selling their own product.

Service is almost taken for granted these days. The service of the industrial distributor is second to none, not even that of the department store. We have one salesman who gives us such excellent service on belting, day or night, weekday or holiday, that we go out of our way to favor him wherever possible.

If I were to set down the most important sales commandments on a huge tablet, I would list them as follows: 1. Know the facts before making sweeping statements, 2. Don't try to cover your entire catalog in one visit, 3. Accept the results of a trial in a sportsmanlike manner, 4. Know when to leave, and 5. Be courteous.

Five Sales Commandments

1. **Know the facts before making sweeping statements.**
2. **Don't try to cover your entire catalog in one visit.**
3. **Be courteous.**
4. **Know when to leave.**
5. **Accept the results of a trial in a sportsmanlike manner.**

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CURRENT CODE DEVELOPMENTS

Sales Problems Under N.R.A.—Manufacturers' Codes Interpreted—Code Authority Activities—Regional Group News—Cost Determination Data—Price Filing Information

CODE AUTHORITY ELECTION ON

● BALLOTS have been mailed by George A. Fernley, secretary of the Code Authority of the Industrial Supplies and Machinery Distributors' Trade, for the election of members of the Code Authority. Last date for receipt of marked ballots in Philadelphia has been set for December 7. Votes will be counted at the next meeting of the Code Authority in New Orleans, December 10.

Eight nominees, listed on the ballots, by the National Supply and Machinery Distributors' Association and the Southern Supply and Machinery Distributors' Association. Members of the trade may vote for other persons than those nominated by writing in the names. Eight members of the Code Authority are to be elected.

J. Robert Kelley, Manning, Maxwell and Moore, Incorporated, Jersey City, New Jersey, nominated for the Code Authority by the National Association.

W. T. Ryan, Cutter, Wood and Sanderson Company, Cambridge, Massachusetts, nominated for one of the vacancies on the Code Authority.

Among those nominated by the two associations are the following members of the trade who are at present serving on the Code Authority: B. H. Ackles, The Rayl Company, Detroit; Charles E. Curtis, The Western Iron Stores Company, Milwaukee; John L. Pitts, Brown-Roberts Hardware and Supply Company, Alexandria, Louisiana; H. E. Ruhf, Cleveland Tool and Supply Company, Cleveland; Alvin M. Smith, Smith-Courtney Company, Richmond, Virginia.

The three nominees who are not now serving are: P. A. Converse, Marshall-Newell Supply Company, San Francisco; J. R. Kelley, Manning, Maxwell and Moore, Incorporated, Jersey City, New Jersey; and W. T. Ryan, Cutter, Wood and Sanderson Company, Cambridge, Massachusetts.

CODE AUTHORITY SUBMITS AMENDMENT

● THE CODE AUTHORITY of the Industrial Supplies and Machinery Distributors' Trade has submitted an application to the National Recovery Administration for an amendment to Article 11 of its code of fair competition.

Proposed Amendment to Code of Fair Competition for the Industrial Supplies and Machinery Distributors' Trade

ARTICLE II

Section 1. The term "Industrial Supplies and Machinery Distributors' Trade," or "trade" as used herein, includes the warehousing, selling, distributing, and/or servicing in conjunction therewith of tools, equipment, and supplies for railroads, ships, boats, mines, mills, factories, and/or to other industrial users, and/or to the Federal Government or to any State, County, Municipality or other public authority, or any of their respective agencies or instrumentalities.

Any criticisms of, objections to or suggestions concerning this amendment must be submitted to Deputy Administrator Frank A. Hecht, City Club Building, 1320 G Street, N. W., Washington, prior to Thursday, December 13. Persons submitting any such criticism, objection or suggestion must state his name, the persons or groups he represents and the facts supporting his criticism, objection or suggestion.

VOTE TAKEN ON AMENDMENTS

● A mail vote is being taken among members of the trade by the Code Authority before submitting three amendments to

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the code of fair competition to the Code Authority. These amendments, which appear on this page, have to do with price filing, sales below cost and the provision of funds for regional committees.

Votes on these amendments will be counted at the next meeting of the Code Authority in New Orleans on December 10.

Those distributors who desire to compare the new clauses with those which they are designed to replace will find the code as approved to date in the November issue of MILL SUPPLIES.

METROPOLITAN INSTITUTE HOLDS ELECTIONS

● H. A. DAYER, Abrasive Machine and Supply Company, Newark, New Jersey, was elected president of the Metropolitan Mill, Marine and Contractors Supply Institute in an

H. A. Dayer, Abrasive Machine and Supply Company, Newark, newly elected president of the Metropolitan Mill, Marine and Contractors' Supply Institute.

election held on October 18. He succeeds E. T. B. Penman, Neal and Brinker Company.

Other officers are: William W. Edwards, Federal Hardware Corporation, vice-president; H. C. Dienst, A. P. Dienst Company, secretary; and J. Robert Kelley, Manning, Maxwell and Moore, Incorporated, treasurer. Members of the executive committee, in addition to the above,

Proposed Amendments
to the
Code of Fair Competition
of the
Industrial Supplies and Machinery Distributors' Trade

NOTE: Members of the trade have been given an opportunity to vote on these amendments prior to their being presented to the Recovery Administration.

PRICE FILING

Eliminate Section 2 of Article VI and substitute therefor the following:

Section 2 (a) Where in any partucular regional area a majority of the members of the Trade in that regional area elect to file prices, discounts, and other terms or conditions of sale with such confidential agency as may be approved by the Code Authority, all members in such regional area shall file prices on all items designated by said agency. Any Members of the Trade outside of such regional area desiring to sell within such regional area shall comply with the price filing regulations in such regional area, and shall not file a price in such regional area below that filed or quoted by him in his own regional area. It is a violation of the Code for any Member of the Trade to sell at other than his individually filed schedules covering prices, terms and conditions; provided that any Member of the Trade may sell at less than his filed price in order to meet the competition of a competitor who has filed a lower price on the same article. Prices and revised prices shall become effective immediately upon filing. Such prices and revised prices shall upon receipt be immediately available for inspection by any interested party at the office of such agent. The said agent of the Code Authority shall maintain a permanent file of all prices filed as herein provided, and shall not destroy any part of such records except upon written consent of the Administrator. Upon request, said agent of the Code Authority shall furnish to the Administrator or any duly designated agent of the Administrator, copies of any such list or revision of prices.

(b) When any member of the Trade has filed any revision, such member shall not file a higher price within forty-eight (48) hours.

(c) No member of the Trade shall enter into any agreement, understanding, combination or conspiracy to fix or maintain prices, nor cause or attempt to cause any member of the Trade to change his prices, by the use of intimidation, coercion, or any other influence inconsistent with the maintenance of the free and open market which it is the purpose of this Article to create.

SALES BELOW COST

Eliminate Section 1 of Article VI and substitute the following:

Section 1—The standards of fair competition for the Trade with reference to pricing practices are declared to be as follows:—

Wilfully destructive price cutting is an unfair method of competition and is forbidden. Any Member of the Trade or of any other trade or the customer of either may at any time complain to the proper Regional Committee that any selling, quoted or filed price constitutes unfair competition as destructive price cutting, imperiling small enterprises or tending toward monopoly or the impairment of Code wages and working conditions. The said Regional Committee shall within five (5) days afford an opportunity to the Member selling at, quoting or filing the price to answer such complaint and shall within fourteen (14) days make a ruling or adjustment thereon. If such ruling is not concurred in by either party to the complaint, all papers shall be referred to the Code Authority and if the Code Authority is unable to reach a satisfactory determination of the question it shall be promptly referred to the Research and Planning Division of NRA which shall render a report and recommendation thereon to the Administrator.

PROPOSED AMENDMENT PROVIDING FOR BUDGET AND ASSESSMENT FOR REGIONAL AREAS

Regional Committees are hereby empowered to submit to the National Recovery Administration, through the Code Authority, itemized budget and basis of assessment to defray the expenses of administration of the Code in their regional areas, to such extent as may be delegated by the Code Authority. When approved by the National Recovery Administration, such assessment shall be mandatory on all members of the Trade in that area.

"Goodrich Co-operation

Headquarters of Republic Supply Co., of Calif., at Los Angeles. Other stores of this company are located at Long Beach, Averal, Ellwood, Huntington Beach, Mountain View, Ventura, Bakersfield, and Taft

One of Republic's first Plylock jobs was making a 22" belt endless on a 160-H.P. gas compressor. They did the job overnight.

Next morning—the job done without dismantling the compressor, and the belt made endless and all ready to run, a few hours after work was started.

Goodrich

MILL SUPPLIES

UMI

Increases Our Profit" *says* This Distributor

"Dear Mr. Connors:

"We would like to commend the various departments of the Goodrich organization on their many developments of new and revolutionary products, and convey to you our appreciation of the work that has been and is being done along these lines.

"Since becoming a Goodrich distributor in 1930, we have come to a realization of the possibilities of intelligent cooperation between the manufacturer and distributor, and have seen in our own increased sales and profits on rubber products the benefits that accrue to the distributor from such cooperation.

"We are most enthusiastic about the possibilities opened up for us through the development of the Plylock Belt Splice, Hipress Rotary Hose, and Grip-Tite Casing Guards, and feel confident that with these and other products which your research laboratories will no doubt develop from time to time, our organization should be able to accomplish even more in the future with the Goodrich line than it has in the past.

Yours very truly,
THE REPUBLIC SUPPLY CO., of California
J. A. Crawford, *President.*"

* * * *

Mr. Crawford's reference to his success with Plylock Belt Splice is modesty itself. Quick to appreciate the advantage of a practical method of making belts endless on the job, Republic Supply Co., of Calif., used it to open up new accounts, consolidate old customers, hang up customer-service records. Here is a Distributor who makes full use of the complete line, the extensive advertising, the field sales help which Goodrich offers its Distributors. The B. F. Goodrich Co., Mechanical Rubber Goods Division, Akron, O.

NEW SOURCES OF PROFIT

Goodrich research is constantly adding new items to the distributor's line—new products on which to make a profit. For example, Goodrich distributors have recently been offered . . . .

- *Improved moisture-resisting, mildew-resisting cotton fire hose jackets.*
- *New pliable belt.*
- *Two-in-one tape, combining rubber and friction tape in one.*
- *Semiflexible rubber buckets and dippers.*

Showing one of the steps and the only tools necessary in making Highflex Belt endless on the job by the new Plylock Splice (patent applied for).

ALL *products problems* **IN RUBBER**

are: Herbert Edge, Topping Brothers; William E. Hansen, Hansen and Yorke Company; Stanley W. Jones, Jones and Auerbacher, Incorporated; E. T. B. Penman, Neal and Brinker Company; John Tiebout, Jr., W. and J. Tiebout; and Walter P. Wells, the Williams and Wells Company.

The election took place at a general meeting of the Institute at the Governor Clinton Hotel. This association, made up of distributors within a range of 50 miles of the City Hall, New York, has been extremely active since the inception of the National Industrial Recovery Act. Working along educational lines, it has been successful in supplementing the work of the Code Authority and in bringing about greatly improved conditions in this highly competitive market.

Officers of the Central States Mill Supply Club. Left to right: Howard St George, Shadbolt and Boyd Company, Milwaukee; C. H. Bradley, W. J. Holliday and Company, Indianapolis; W. H. Clark, Samuel Harris and Company, Chicago; C. J. Shaw, Barrett Hardware Company, Joliet; and Norman Durrie, executive secretary.

CENTRAL STATES HOLDS SECOND MEETING

● REPRESENTATIVES of 37 industrial supply houses in Illinois, Indiana, Wisconsin, Iowa, Nebraska and Missouri, members and guests of the Central States Mill Supply Club, attended an all-day meeting in Chicago on November 14. Total attendance numbered over 50.

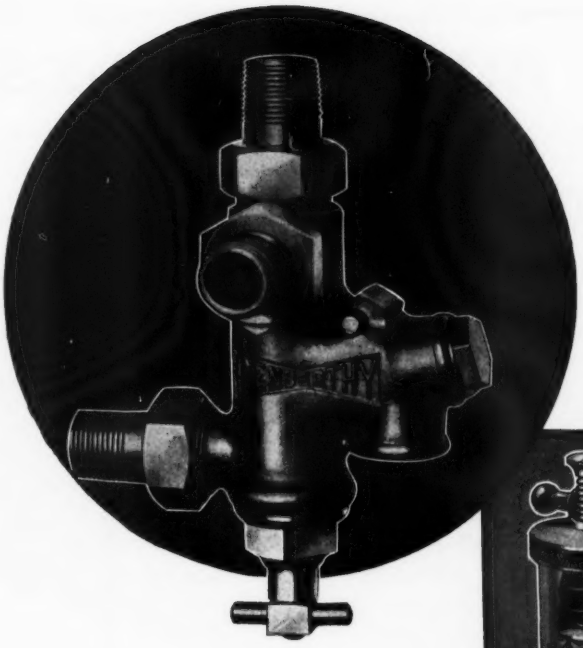
The morning meeting was devoted to a directors' meeting, an opening address by Wendell H. Clark, president, and routine reports by the executive secretary, the treasurer, chairman of the membership committee and the chairman of the regional committee of the Code Authority.

After luncheon, several prepared subjects preceded a general discussion. C. H. Bradley, W. J. Holliday and Company, Indianapolis, discussed, "What the Central States Mill Supply Club Means to Its Members;" Carl Channon, Great Lakes Supply Company, Chicago, talked on the importance of cooperation between local groups; Oscar Iber, O. Iber Company, Chicago, pointed out the advantages of cooperation between members. "Profits versus Volume" was F. W. Copeland's subject. Mr. Copeland is the president of the H. Channon Company, Chicago. "Resales" were discussed by George Bochstahler, Indianapolis Belting and Supply Company, "Transportation" by Howard St. George, Shadbolt and Boyd Company, Milwaukee, and "Credits" by S. H. Clark, Samuel Harris and Company, Chicago.

Members of the Central States Mill Supply Club gathered for a general meeting spent a highly instructive and profitable day in Chicago on November 14.

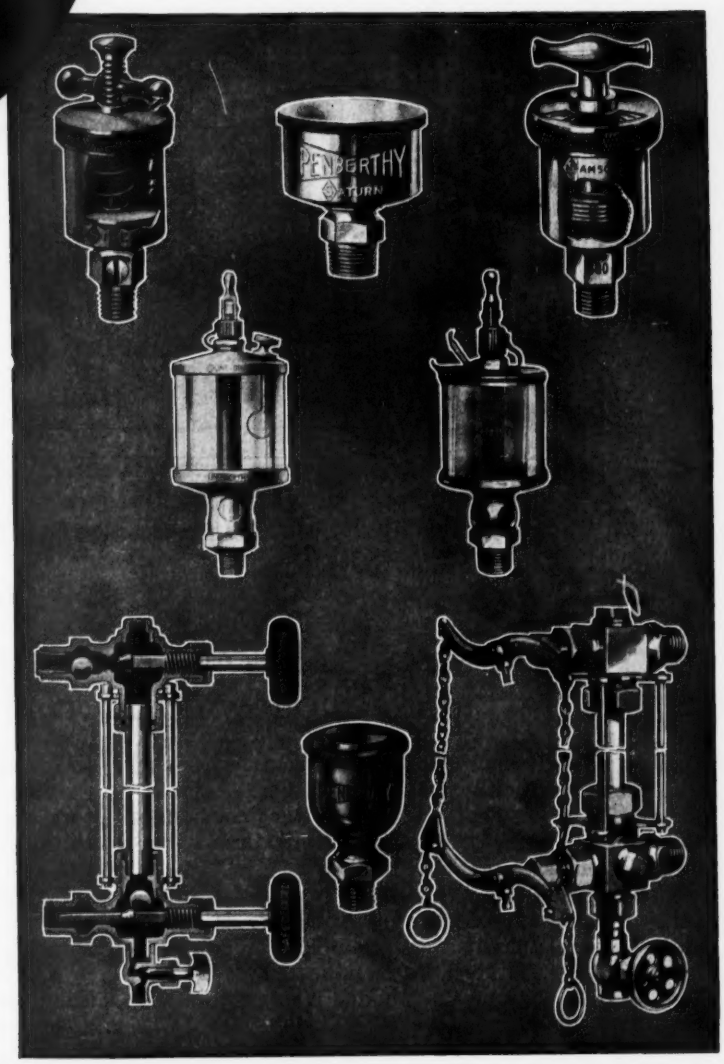
The Central States Mill Supply Club, which was organized shortly after the passage of the Recovery Act, has effectively assisted in obtaining compliance with the code of fair competition for the Industrial Supplies and Machinery Distributors' Trade in the Central States Area. Working along the lines of education and the building of good will, this group is well on its way toward reaching the stated goal of the Recovery Administration, self-government of industry.

An office is now maintained in the Daily (Continued on page 83)



ECONOMY SUGGESTS

PENBERTHY PRODUCTS



THE fact that such a large number of operating organizations in the "Close Buyer" class have for years used only these injectors, liquid level gages and lubricating devices, is significant of the fundamental economy of Penberthy Products.

These Penberthy Products are cast from new metal . . . not made from spun or stamped brass. The design and workmanship allow for the rough handling that is probable.

This is another important reason why Penberthy Products create profitable repeat business and good will for the supply house that stocks them. Penberthy Products are sold only through the jobbing trade.

PENBERTHY INJECTOR COMPANY

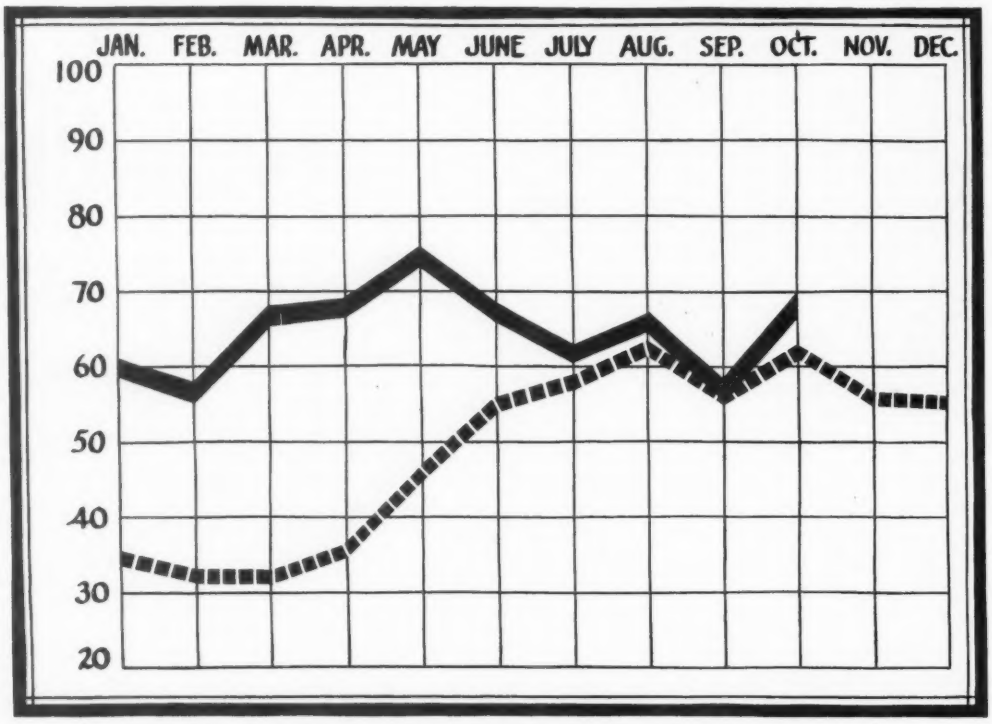
DETROIT

ESTABLISHED IN 1886

CANADIAN PLANT, WINDSOR, ONT.

UMI

THE TREND OF SUPPLY SALES



INDUSTRIAL SUPPLY AND EQUIPMENT SALES FOR OCTOBER, 1934
100 — Average Monthly Sales, 1923—1925

1933—Broken Black Line 1934—Solid Black Line

October sales follow 1933 trend. Indicator rises to 68.5 following drop in September.

● THE Sales Indicator for October registers **68.5**, as compared with **56.6** in September. As was the case in 1933, September sales were considerably less among reporting distributors than were those for either August or October.

The increase from September to October was uniform in all sections except the North Atlantic States, where a slight drop, from **58.5** to **58.0** was recorded. The Southern States Indicator rose from **62.1** to **78.1**, that of the Middle Western States from **49.1** to **64.1**, the Western States from **51.7** to **70.8** and the Pacific Coast from **49.2** to **62.6**.

With but a few exceptions, reporting distributors are expecting November sales to be smaller than those of the previous month. This estimate is based on business for the first half of the month.

For the first time, reporting distributors were asked the number of orders received during the month. While only 45 kept such records, the figures given below give a good indication of conditions throughout the country. This report will be given each month from now on.

OCTOBER, 1934

Average No. of orders received per house during month—1716
Average No. of orders received per house on each working day—61
Average size of order, all houses—$15.85

UMI

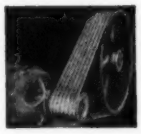
Six years of Advertising

HELP MILL SUPPLY HOUSES BUILD A BIGGER BUSINESS WITH

DAYTON COG-BELT DRIVES

● Back of Dayton Cog-Belt Drives are six years of continuous advertising in trade magazines your customers read. This makes sales easier, reduces selling expense and helps to make the Dayton line the most profitable in the entire power transmission field.

Combined with the prestige resulting from this publicity is the unqualified endorsement of thousands of users . . . another powerful business-building factor. In addition, leading manufacturers of small machines and appliances use Dayton Drives as original equipment on products they sell, such as machine tools, compressors, fans, blowers, pumps, refrigerators, washing machines and similar lines. This means a constant demand and steady repeat business.



And there's a Dayton Drive for every need. *Dayton Cog-Belt Drives* are unequalled for general industrial service up to 1,000 h.p. And because Dayton Cog-Belts are "built to bend," these Drives permit closer coupling, save floor space, save power and cut production costs. *Day-Steel Pulleys with Dayton Cog-Belts* for drives up to 7½ h.p. are made with 1 to 6 grooves and are from 30% to 50% lower in price. *Fractional Horsepower* (F.H.P.) *Drives* with Dayton V-Belts are *standardized* for all types of small machinery and accurately engineered for any speed ratio and center distance.

You can supply this vast market with a minimum inventory. For complete jobber stocks, carried in 40 industrial centers, insure quick delivery at all times.

It would pay you to get *all* the facts about the money-making opportunities Dayton Cog-Belt Drives offer to Mill Supply Houses. Write us.

THE DAYTON RUBBER MANUFACTURING COMPANY, DAYTON, OHIO

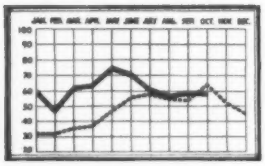
The World's Largest Manufacturer of V-Belts . . . Manufacturers also of Dayton Fan Belts, Dayton Red Tube Radiator Hose, and the famous Dayton Thorobred Tires and Tubes

Dayton

COG-BELT DRIVES

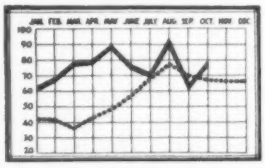
UMI

TERRITORIAL SALES INDICATORS



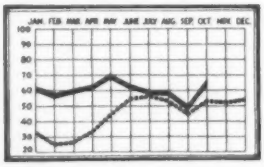
NORTH ATLANTIC STATES

Despite predictions to the contrary, the Sales Indicator for the North Atlantic States drops to **58.0** in October from **58.5** in September. The average order among reporting distributors in this district for October was $14.40.



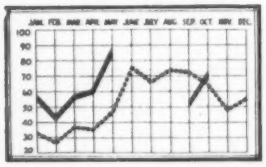
SOUTHERN STATES

A sharp rise to **78.1** marks the return of sales in this section after a bad month in September, when the Indicator read **62.1.** With only one or two exceptions, however, distributors expect November business to be off anywhere from 5% to 15%. The average order for this district in October was $17.56, unusually high.



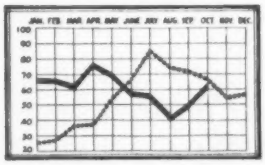
MIDDLE WESTERN STATES

Recovering from its only descent to the forties this year, the Middle Western Sales Indicator reads **64.1** for October, as compared with **49.1** in September. November sales will be slightly lower, based on business for the first half of the month. The average order received during October amounted to $15.81.



WESTERN STATES

Contrary to expectations, the Sales Indicator for this section rises to **70.8** in October from **51.7** in September. A decrease is indicated from November by the slowing up of business in the first half of the month. The average order in this section during October was for $6.13.



PACIFIC COAST STATES

The climb back to normal after the strike seems to be in full sway on the Coast, where the Indicator for October reads **62.6,** as compared with **49.2** in September. November sales will drop the Indicator down a few points if sales for the first half of the month may be taken as a criterion. The average order in this district in October amounted to $15.90.

UMI

CEMENT! PAPER! STONE! OIL!

Belt "case histories" in four industries show how GTM helps you land orders

THAT the biggest factor in belting economy is the correct application of belts to drives is proved by the following records of Goodyear belts under vastly different operating conditions.

CASE HISTORY No. 1. New Jersey cement plant. Drive: giant rock crusher, grinding 3- to 10-ton boulders. G.T.M.—Goodyear Technical Man—specified 9-ply Goodyear Transmission Belt in 1922. Still on the job today after 12 years' service without any repairs, save cutting to take up slack.

CASE HISTORY No. 2. St. Louis paper mill. Beater drives, operating 24 hours a day. Belt failures cost 1 to 2 hours delay daily, until G.T.M. specified 16-inch, 8-ply endless Goodyear THOR Belts. Now getting three to four years, continuous service, without breakdowns—*at 50% less belting cost.*

CASE HISTORY No. 3. South Carolina stone plant. Four mean drives—vibrating screen, air compressor, main gyratory crusher and jaw crusher. G.T.M. recommended four Goodyear COMPASS Endless Cord Belts. Results: on vibrating screen—five times longer service than previous belt, saving $142. On others, approximately 100% longer service at 50% less cost per belt.

CASE HISTORY No. 4. Arkansas oil well. Pump drive. Previous belt broke five times in five months. G. T. M. advised double-deck Goodyear COMPASS Cord Endless Belt. Still in operation after 35 months' continuous operation, 24 hours a day, without a single shut-down for belt trouble!

BELTS
•
MOLDED GOODS
•
HOSE
•
PACKING

Made by the Makers of
GOODYEAR TIRES

SALES-CLINCHERS

It's easier to land the big orders when you've such facts—typical of thousands of Goodyear installations—to back you up. If you are not a Goodyear Mechanical Rubber Goods Distributor, it will pay you to investigate. Write Goodyear, Akron, Ohio, or Los Angeles, California.

THE GREATEST NAME IN RUBBER

GOODYEAR

KEEPING POSTED

Newsy facts about industrial distributors and their salesmen

Executives and salesmen of the Fulton Supply Company, Atlanta, Georgia, which this year is celebrating its twentieth anniversary. Front row, left to right (years of service with Fulton are given after each name): W. A. Spitler, credit manager, 15 years; T. G Eubanks, secretary, 19 years; H. A. Kane, vice-president, 16 years; George Winship, president and treasurer, 20 years; Joseph Winship, vice-president, 12 years; W. B. Botts, salesman, 12 years. Second row: R. H. Trammell, manager, 12 years; E. C. Rae, 15 years; J. W. Still, 13 years; C. F. Coffee, Jr., 6 years; A. H. Moss, 1 year; J. W Tillinghast, 10 years. Rear row: H. D. Watson, 5 years; W. G. Archer, 12 years; W. G. Coyle, 1 year; W. A. Callaway, 13 years; W. M. Lane, 14 years.

FULTON SUPPLY CELEBRATING TWENTIETH ANNIVERSARY

• THE FULTON SUPPLY COMPANY, Atlanta, Georgia, is completing its twentieth year in the supply business this month. George Winship, with the aid of four other men, opened his place of business in 1914.

The first year this small company had a pretty tough time of it, due largely to the unrest caused by the opening of the World War. They weathered the storm, however, and gradually expanded until, a few years later, larger quarters were needed. These sufficed until 1923, when the company built the building in which it is now located.

The personnel has grown from the modest five to the 34 who now make up the organization.

NATIONAL ASSOCIATION HEADS MEET

• THE mid-year meeting of the officers, executive committee and advisory board of the National Supply and Machinery Distributors' Association was held in Phiadelphia November 9. The meeting was attended by: William T. Todd, Jr., Somers, Fitler and Todd Company, Pittsburgh; John T. Potts, The Galigher Company, Salt Lake City; Percy Ridings, Syracuse Supply Company, Syracuse, New York; George A. Fernley, secretary-treasurer and H. R. Rinehart, assistant secretary-treasurer of the association; P. G. Maddock, Maddock and Company, Philadelphia; W. T. Ryan, Cutter, Wood and Sanderson Company, Cambridge, Massachusetts; A. R. Smith, Boyer-Campbell Company, Detroit; G. Cheston Carey, Carey Machinery and Supply Company, Baltimore; V. H. Carter, Colcord-Wright Machinery and Supply Company, St. Louis; W. J. Radcliffe, The E. A. Kinsey Company, Cincinnati; B. H. Ackles, The Rayl Company, Detroit; H. H. Kuhn, The Hardware and Supply Company, Akron, Ohio; H. E. Ruhf, The Cleveland Tool and Supply Company, Cleveland and E. E. Stvan, Strong, Carlisle and Hammond Company, Cleveland.

It was the concensus among those present that while relations between distributors and manufacturers have been materially improved, much work remains to be done. The manufacturers' relations committee plans to compile a report showing the policies observed by individual manufacturers. Points to be covered are: whether or not the manufacturer sells direct; the protection offered to distributors; cash discount terms; resale price policy; the nature of territorial arrangements with distributors and whether or not a distinction between stocking and non-stocking distributors is recognized. This committee is under the chairmanship of H. E. Ruhf, Cleveland Tool and Supply Company, Cleveland.

The overhead expense research committee reported considerable activity by E. E. Stvan, Strong, Carlisle and Hammond Company and Carl Channon, Great Lakes Supply Company toward the development of a special research study on the cost of handling small orders.

Progress was reported in the formulation of plans for the group-by-industry meetings at the next convention. An effort is being made to so arrange these meetings that distributors attending the convention can attend all or nearly all of the sessions.

WOODBURY, JR. PROMOTED

• SIDNEY F. WOODBURY, JR., has been made treasurer of Woodbury and Company, Portland, Oregon, succeeding Fred F. Holcomb, who is now vice-president and sales manager of the company.

IN EVERY PLANT!

If you want to know more about the profit possibilities for distributors in the HEWITT line, please write to the Hewitt Rubber Corporation, Buffalo, N. Y.

WHERE IS THE HEWITT MARKET?

HEWITT likes to talk to smart, money-minded distributors who want the answer to "how large is the HEWITT market?" We are glad of the chance to point out that HEWITT co-operation, through sales and technical help, and a broad advertising policy, is making plants conscious of the many ways operating costs can be cut by the use of HEWITT industrial rubber goods. In every plant in your area, your men have a fine chance to sell not one, but a number of applications of the HEWITT line, with a good profit tacked on to each.

THERE'S NO SUBSTITUTE FOR SKILL

nor for co-operation

HEWITT RUBBER CORPORATION

THE GUTTA PERCHA & RUBBER MANUFACTURING CO. EST. 1859 . . . HEWITT RUBBER COMPANY. EST. 1904

HOSE CONVEYOR AND TRANSMISSION BELTS PACKING

UMI

This is not all of the organization of the General Rubber & Supply Company, of Portland, Oregon, but about as many as could be gathered at one time. Left to right, front row: J. E. Brennan, store; Barney Heiser, shipping; Chet Kellogg, belt man. Back row: Joe Carpenter, belt salesman; Bill Preston, belt salesman; J. P. Carney, president. W. H. Moser, bookkeeper, was not in the picture, and neither were salesmen Alex. Sargent, William Eaucher and Howard Lydick.

ALVIN SMITH CONDUCTING DISTRIBUTOR MEETINGS

• ALVIN M. SMITH, secretary of the Southern Supply and Machinery Distributors' Association, is conducting a series of meetings throughout the southern territory to bring about closer cooperation between distributors and various manufacturing groups. At each meeting, Mr. Smith points out the progress being made by committees of the association and the Joint Merchandising Committee in their meetings with manufacturers' representatives.

In the course of his travels about the country, Mr. Smith has found distributors in a more profitable position than they were a few years back and that they, as well as other business men, are finding business slowly but steadily improving.

Up to the present time, Mr. Smith has held meetings in Greensborough, North Carolina; Atlanta, Georgia; Knoxville and Memphis in Tennessee, and Houston and Dallas in Texas. On December 4 a similar meeting is to be held at Charleston, West Virginia, and on December 11, the distributors of the New Orleans area will meet with their secretary.

The distributors in each of these regions have cooperated to the fullest extent with Mr. Smith. As a result, numerous benefits helpful to both distributors and manufacturers are materializing.

NEW BURHANS AND BLACK POLICY BRINGS CHANGES

• THE recently adopted policy of discontinuing retail sales, has brought many changes in the organization and physical set-up of Burhans and Black, Incorporated, Syracuse, New York.

First of all, the Syracuse retail store is being closed and all effort in the future will be put on sales to hardware retailers and to industrials. Additional push will be put behind the sale of industrial supplies. Present plans call for the addition of new salesmen in this department.

Three men have been put on the sales desks for the mill and factory supply trade only. They have been located just in front of the service counter, in order to increase the speed of servicing call customers. The customer places his order, gets a price and immediately the material is assembled by the clerk at the service counter. To make this operation more effective, a stock of those items most frequently called for has been moved to the first floor, easily accessible to the assembly clerk.

Other changes involve the removal of the company's offices to the Warren Street entrance and a change in the location of the shipping department. The perpetual inventory system, discontinued here as it has been in so many houses under the pressure of the last few years, is being put back into operation.

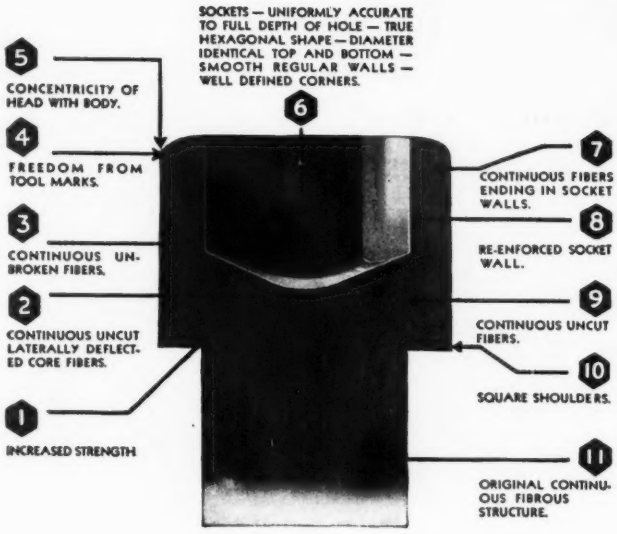
ADAMS PROMOTED BY LEWIS SUPPLY

• HOWELL E. ADAMS, for the past two and a half years head of the specialty department of Lewis Supply Company, Memphis, Tennessee, has recently been elected vice-president of that firm. Another change has been made in the personnel of this organization with the addition of H. A. Ray to its sales force. Mr. Ray, formerly with the old Reed and Duecker Company, Memphis, is covering the Mississippi territory.

A part of the organization of The Lloyd Company, Everett, Washington, distributor of industrial supplies and hardware. Left to right: Mrs. E. M. Hoover, bookkeeper; Mrs. Tressa Hall; May Cunningham; Irving L. Lloyd, president; Percy Lloyd; and W. D. Hansen, shipping clerk.

FIBRO FORGED SCREWS

TRADE MARK



The results of an entirely *New* and Better method of SOCKET SCREW manufacturing

Patented by Holo-Krome FIBRO FORGED SCREWS

This new screw is presented at a time when new and better products are vitally necessary. High speed, volume production demands greater efficiency and strength from even such a small part as a socket screw.

Important, too, and very timely; FIBRO FORGED Screws serve as the impetus for new and more productive sales plans by which increased volume and greater profits be realized.

The Holo-Krome policy has been and will continue to be, to sell through the Industrial Distributor. Furthermore, our trained sales staff know their product and the market for it. And, most important, they know how best to aid you in exploiting your market for socket screws.

A card from you will bring information pertinent to the subject foremost in the minds of every Industrial Distributor, "How can you aid me in exploiting my market".

HOLO-KROME FIBRO FORGED TRADE MARK SCREWS

No obligations. Write today!

The Holo-Krome Screw Corp.,
Bristol, Connecticut, - - - U. S. A.

manufacturing exclusively
SOCKET SCREWS
SET—CAP—STRIPPER BOLTS—PIPE PLUGS

DISTRIBUTORS SERVE INDUSTRY ECONOMICALLY

Barnes Hack Saw Blades

*Question No. 5—

Does the manufacturer help sell your customers and bring you new business?

The Barnes Distributor Answers "YES" Because—

Barnes does not stop with selling you a stock.

Effective advertising to your trade pioneers the way for your salesmen. Barnes factory trained salesmen are constantly creating the demand for Barnes blades by calling on the actual users of hack saw blades and metal cutting band saws, paving the way to orders for Barnes distributors.

These men are daily giving purchasing agents, shop men and the users of blades the benefit of their experience, helping them solve their metal cutting problems.

They have nothing else to sell. Their efforts mean satisfied customers and new business for Barnes distributors.

Why not investigate the Barnes line and what it offers you?

BARNES JUNIOR FRAMES AND BLADES

Barnes Junior Frames and Blades have an endless number of uses in the garage, plumbing, electrical and industrial shops, and in the home for cutting metals and small meat bones. Every tool kit should have one of these frames. Frames with a blade inserted are packed in individual envelopes, 12 to a box. The 6x¼ .014 gauge 32 Flexible blades are packed 12 to an envelope with 12 envelopes to a box.

**This is the fifth in a series of questions and answers on hack saw distribution. Look for No. 6 in the January issue of MILL SUPPLIES.*

DISTRIBUTORS SERVE INDUSTRY ECONOMICALLY

W. O. BARNES CO., INC.
1297 Terminal Ave. Detroit, Mich.
and Leading Jobbers Everywhere

TWO NEW DEPARTMENTS FOR HARDWARE AND SUPPLY

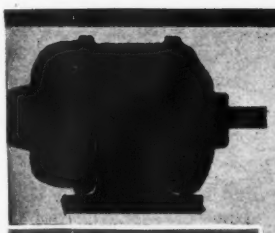
• TWO new departments have been added to the activities of the Hardware and Supply Company, Akron, Ohio, a materials handling department and one devoted to the sale of air conditioning and oil and gas furnaces.

The former will be headed by Howard L. Bushman. Mr. Bushman is a graduate of Purdue University in engineering and has been in sales engineering work for several years. He was formerly connected with the W. S. Tyler Company, Cleveland, in its sales department.

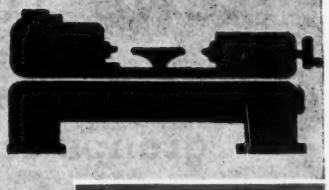
HOWARD L. BUSHMAN

E. E. Stewardson will head the department which will specialize on air conditioning and oil and gas furnaces, such as manufactured by the General Electric

E. E. STEWARDSON



Within this Spread—between the Power and the Work—is a Source of Profit for the Industrial Plant and for you as an Industrial Distributor . . .



MODERN · GROUP · DRIVE · PTC

Industrial concerns everywhere are finding that their power costs are too high for their present production. A leading authority estimates that industry can save enough by cutting power costs to double 1933 dividends of the entire manufacturing industry.

"What can they do about solving this problem?" Dodge and Dodge distributors can supply the answer. In many cases it will be Modern Group Drive, and Dodge has developed and Dodge distributors can sell Group Drive installations that are modern in every sense of the word. Bearings, clutches, pulleys, V-belt drives—every product up-to-date and equal to the hard service demanded by present day production practice.

In cases where individual drive is obviously the most economical solution, Dodge and their distributors can supply the drive best suited for every individual requirement.

Between the power and the work is a source of profit for the plants in your territory and you as a Distributor. As members of the Mechanical Power Engineering Associates and Contributors to the Power Transmission Council Advertising program, we are helping to stimulate interest in potential power savings through Better Power Transmission. In our own advertising we are pointing out definite ways by which industry can effect savings.

This combined advertising program plus your sales effort and our sales and engineering co-operation, will mean increased power transmission volume and profit for you in 1935.

Dodge Distributors Can Sell →

DODGE
MISHAWAKA
THE *Right* DRIVE FOR EVERY JOB

DODGE MANUFACTURING CORPORATION, MISHAWAKA, INDIANA

UMI

News from JMC Headquarters

Meetings with local purchasing agent groups feature month's activities. Several new subscribers added

• ONE of the most successful meetings that the JMC has participated in was held in Dallas the night of November 22. In co-operation with the Purchasing Agents' Association, Jack B. Dale, president, Briggs-Weaver Machinery Company, was host to more than 100 leading industrial buyers and 28 representatives of the distributor industry. After a most enjoyable dinner and entertainment, Alvin M. Smith, chairman, and William E. Cain, secretary, of the Joint Merchandising Committee, presented the JMC survey showing how distributors save consumers money on their industrial tool, equipment and supply purchases. Considerable stress was given to the point demonstrating that distributors are not "middle-men" in the common understanding of the term, and they do not add an extra cost factor in distribution. Distributors, it was pointed out, obtain their overhead and profit by bringing about economies for both manufacturers and consumers.

JMC literature was distributed to the buyers, further substantiating the JMC survey, and it was gratifying to note that practically every buyer took it along with him.

A number of favorable comments were received after this meeting, indicating that the buyers had not generally understood the economic functions, services and facilities provided by distributors and therefore were not making the most effective use of them.

• HARRIS G. PARR, vice-president, Well Machinery and Supply Company, Fort Worth, Texas, was host to a similar dinner meeting of industrial buyers the night of November 20. Grover Cline, president of the Fort Worth Purchasing Agents' Association, and director of purchases for the City of Fort Worth, presided and turned the meeting over to Mr. Parr and Mr. Cain of the Joint Merchandising Committee.

Approximately 60 purchasing agents and plant men were present and they seemed to be very much interested in the JMC data.

Mr. Parr also invited distributors in his territory to attend this meeting, even though they were not members of the JMC.

• ON November 15, members of the Toledo Purchasing Agents' Association were dinner guests of H. E. Oatis, manager of the National Supply Company, for the purpose of hearing the JMC survey. Approximately 60 were in attendance, several buyers coming from nearby out-of-town points. This was a regular meeting of the Toledo Purchasing Agents' Association and after its business session the meeting was turned over to Mr. Oatis and the JMC.

Following the presentation of the JMC survey many buyers approached both Mr. Oatis and the JMC Secretary advising that the data had been very illuminating and gave them a much clearer picture of how distributors could help them save money on their supply requirements. The following letter received by Mr. Cain from Mr. Oatis indicates the interest in these facts proving the economic worth of the distributor:

"The Purchasing Agents of Toledo and our own men found your recent presentation both interesting and illuminating. Everyone I have talked with remarked that much of this information had never been brought to their attention before and that they had not realized the importance of the subject. While it is a little early to definitely list the results of the meeting, we feel sure it will be easier to combat direct buying tendencies than heretofore."

• FURTHER meetings sponsored by the JMC in cooperation with local purchasing agents' associations and industrial buyers are set for Columbus, December 10, Chattanooga, December 12, and Memphis, December 13. In additions, meetings are now being arranged for New Orleans, Cincinnati, Allentown, Pittsburgh, Chicago, Birmingham, Philadelphia, Boston and Cleveland.

The JMC will present its survey of distribution, showing the economies of buying from distributors, before any purchasing agent's group in which city there are distributor subscribers to the JMC, at no expense either to the purchasing agents or local distributors. To arrange such a meeting in your territory write either Alvin M. Smith, chairman, or William E. Cain, executive secretary, State-Planters Bank Building, Richmond, Virginia.

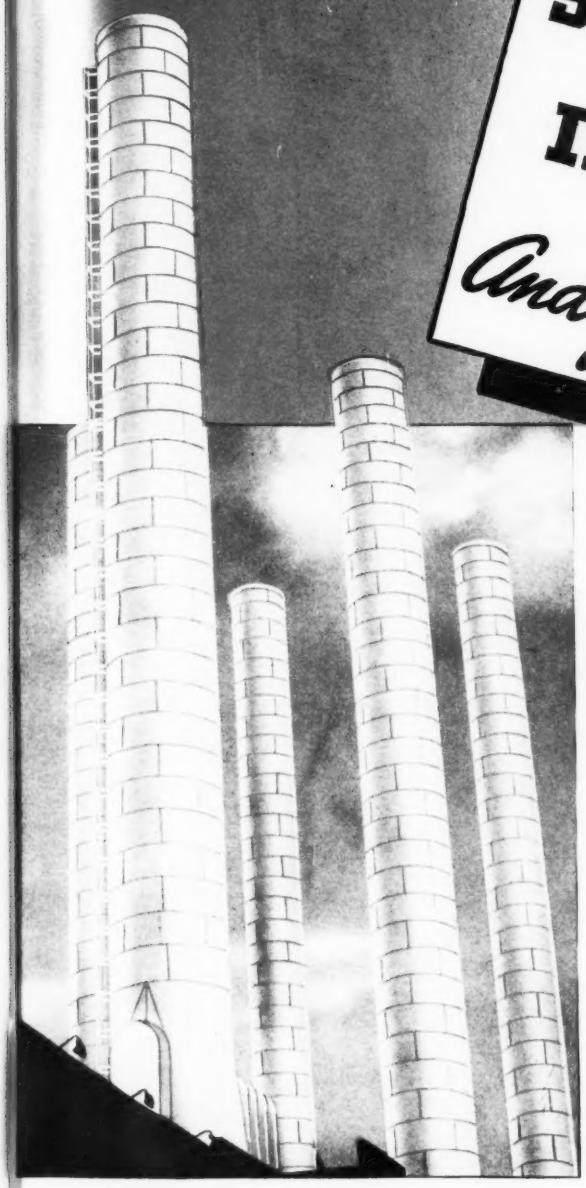
• THE JMC direct-mail campaign has developed a very high degree of interest on the part of cooperating distributors. Two folders were released the last of October and the first of November, and two more will be released early in December. These folders are offered distributors at less than their actual cost of production, due to the financial (Continued on page 39)

UMI

SELL PERMITE FOR *this* JOB

IT'S EASIER TO SELL 40 GALLONS INSTEAD OF 60

And you make more money



Here's a paint with two sales advantages that can take your paint business out of price competition and help you make more sales!

Sales Point Number 1: Your buyer needs fewer *gallons* of Permite to do the job, because Permite "leafs" 100%, spreads 50% farther than most paints. *Sales Point Number 2:* You can demonstrate that Permite wears longer, retains its weatherproof, fume-proof brilliance long after ordinary paints would fail.

Research chemists *engineered* that sales story into Permite Ready-Mixed Aluminum Paint. And they *keep* it there, in every can, by rigid process control.

You will sell *more jobs* with Permite. And you'll make your full profit on every gallon sold. If you want to build your paint business on this sound basis, write today for full details on the Permite franchise.

Leading Industrial Magazines Carry The Permite Story

Permite paves the way for you with factual, convincing advertising to your customers. Thus two great salesmen, Permite advertising and Permite quality, are ready to work for you if you sell Permite.

Permite Ready-Mixed Aluminum Paint is made in two types: Non-Corrosive, and Heat Resisting to 1000° F.

ALUMINUM INDUSTRIES, Inc.
CINCINNATI, OHIO

PERMITE *Aluminum* PAINT

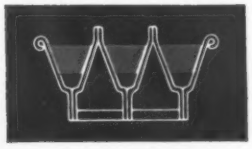
UMI

ANNOUNCING!

The new DURO-BRACE TEXSTEEL SHEAVES

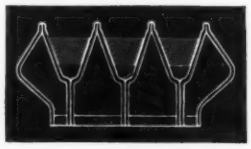
The Allis-Chalmers Manufacturing Company, originators of multiple V belt drives, now offers a new development in sheaves which will withstand the severest duty. • Bending of the outside plate is practically impossible with the new Duro-Brace Sheaves, for in the new design this vulnerable area is braced by a reinforcing convex steel plate, which increases its strength to so great a degree as to eliminate distortion, even under extreme overloads; thus giving a true running drive always. • Duro-Brace Texsteel Drives are 98.9% efficient . . . Require no belt dressing or lubrication . . . Are unaffected by moisture or dust . . . Are Vibrationless, Slipless, Silent, Light and Clean. • Mail us a card asking for Bulletin No. 2188 which sets forth the advantages which Duro-Brace Texsteel Drives offer you in all matters of power transmission, whether they are simple or complex.

Former Design: cross-section showing unsupported outside plate.



★ ★ ★

New Duro-Brace Design: cross-section showing outside plate braced by a convex reinforcing steel plate.



TEXROPE DRIVES

ORIGINATED BY ALLIS-CHALMERS MANUFACTURING COMPANY · MILWAUKEE, WISCONSIN

UMI

This photograph was taken at the Dallas Purchasing Agents' Association meeting which was addressed by Alvin M. Smith, chairman, and W. E. Cain, secretary, of the Joint Merchandising Committee. More than 100 purchasing agents and 28 distributors attended this meeting. Meetings of this character do much to build strong business friendships between distributors and their customers.

(Continued from page 36)
support being given this work by manufacturers.

• THE JMC roster of subscribers is growing every week, but the distributor industry is behind the necessary quota to carry on the present schedule of activities. This year the JMC is pursuing the type of work which should return a profit to every distributor and supply manufacturer cooperating.

New subscribers, since the last issue of MILL SUPPLIES include Chandler-Boyd Supply Company, H. Channon Company, Graft-Pelle Company, C. M. McClung and Company, McComb Supply Company, Montgomery and Crawford, Reams Hardware Company, The Sabine Supply Company, Standard Supply and Hardware Company, Sumter Railway and Mill Supply Company, Well Machinery and Supply Company all of which are distributors and one manufacturer, the American Asphalt Paint Company.

• THE Executive Committee of the Joint Merchandising Committee held a meeting November 10 in Philadelphia, which was attended by Alvin M. Smith, F. M. Archer, H. H. Kuhn, G. A. Fernley, R. K. Hanson, and William E. Cain. David C. Jones, vice-chairman, was absent from the meeting to represent the JMC at the funeral of the late Lawrence G. Puchta. At this meeting the non-profit, non-stock Corporation Charter for the JMC was approved. This Charter was issued by the State of Virginia and provides the necessary protection to all subscribers participating in this Committee's work.

The work accomplished by the Committee since the last meeting was thoroughly analyzed and a future program was carefully appraised in order that the most be accomplished for a minimum of expense.

A tentative budget providing for an expenditure of $1,000 a month was approved which is well in line with the present JMC income.

It was the unanimous opinion of the Committee that the JMC is getting results which should be of definite economic value to the mill supply industry. It was believed that the program was gaining momentum and from all reports and contacts established it seemed that the mill supply industry is thoroughly in accord with the work now being carried on.

• THE Executive Committee of the JMC requests that all members of the industry feel free to write the Committee offering suggestions as to how more constructive work can be inaugurated. Every subscriber to this program should realize that it is to his advantage to keep in close touch with the work projected and make constructive criticism from time to time. The Committee is most desirous of hearing from members of the industry as to their ideas regarding the work to be done by the JMC.

• REACTIONS which the Joint Merchandising Committee has received direct from purchasing agents and through distributors proves very definitely the importance of the group meetings which are being arranged in various sections of the country. If distributors will follow through with buyers where the JMC leaves off, it is believed that industrial users will better appreciate the economic importance of distributors. What's more, they'll back this appreciation with more business.

NATIONAL

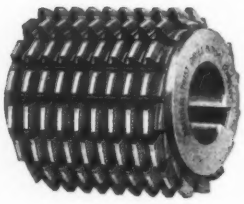
Dynamic Action

CUTTING TOOLS

PLUS

ENGINEERING SERVICE

QUALITY TOOLS AND FIRST HAND, UP-TO-DATE INFORMATION ON METAL CUTTING, BASED ON YEARS OF BROAD EXPERIENCE. BOTH ARE NOW AVAILABLE AND AT YOUR SERVICE. DROP US A LINE.



A Complete Line of

TWIST DRILLS, REAMERS, HOBS, MILLING CUTTERS, SPECIAL TOOLS

NATIONAL TWIST DRILL & TOOL CO.

DETROIT, U. S. A.

Tap and Die Division

WINTER BROS. CO., WRENTHAM, MASS.

Company. He is a graduate of Kansas University in mechanical engineering and comes to Hardware and Supply from General Electric where he has specialized on these items for the past five years.

STEEL WAREHOUSE ASSOCIATION REORGANIZED

● AT a special reorganization meeting of the American Steel Warehouse Association held at Hotel Cleveland, Cleveland, November 21, plans for incorporating the membership under the laws of New York state were completed. Incorporation details will be carried forward immediately and the style of the association will be changed to the American Steel Warehouse Association, Incorporated. Principal offices of the organization will be maintained at 442 Terminal Tower, Cleveland, under the direction of Walter S. Doxsey, executive secretary.

Action at this meeting followed a seven-week campaign to bring the reorganization plans before virtually all members of the association. Officers of the organization visited local chapters from coast to coast within this period to explain the new methods of government which will become effective upon the incorporation of the Association. The new constitution and by-laws that then become operative provide for control of association activities through directors representing the local groups, each of which will have one director on the national board. In addition to these directors, nine directors-at-large are provided under the new constitution. Officers of the association will be elected by the directors, the officers comprising the executive committee which will direct the work of the organization in the intervals between the directors' meeting.

Chapters of the association have been established as follows: New England, Connecticut, New York, Philadelphia, Baltimore, Pittsburgh, Cleveland, Buffalo, Detroit, Chicago, Milwaukee, St. Louis, Twin Cities, Cincinnati, Portland, Seattle, Los Angeles, and San Francisco.

The reorganization plans not

FAMILIARITY NEVER BREEDS CONTEMPT FOR

UPSON

PRODUCTS

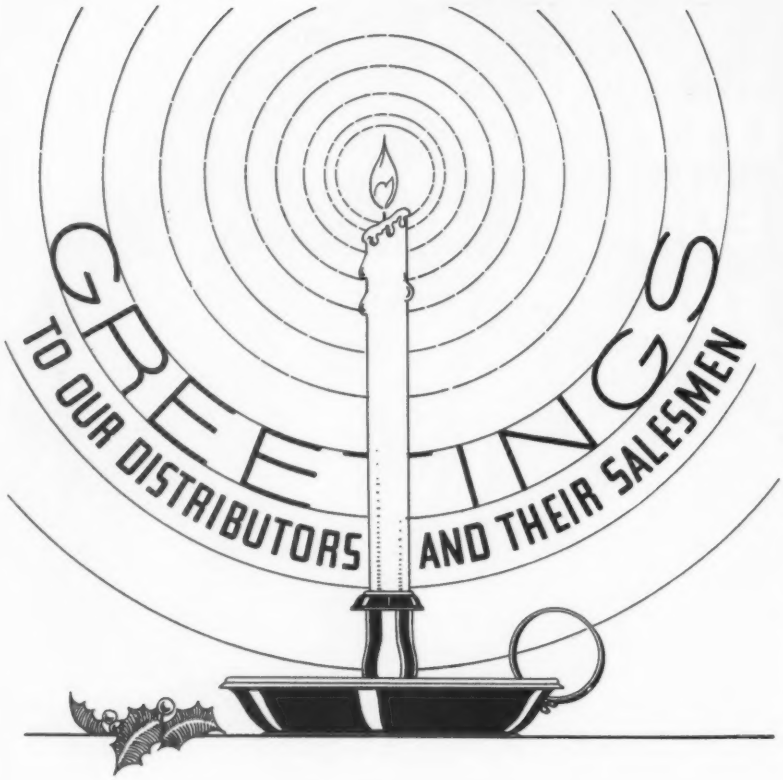
● Buyers of headed and threaded products have acquired a wholesome respect for the name Upson, as continued use of bolts, nuts and rivets bearing this old name has proved their dependability year after year.

Upson Products in your stock are a sound investment. They represent the best steel that money can buy—the best workmanship that fine machinery and skilled men can put into forming that steel into bolts, nuts and rivets—and an almost uncanny care in inspecting, packaging and shipping to avoid expensive errors.

Your stock, as a supplier, should be as complete as the needs of your customers demand. Yet you can always figure that back of your own supply is the Upson stock with more than 5000 items ready at a moment's notice to start the journey down the chutes that lead to the shipping platform and to you.

UPSON NUT DIVISION
REPUBLIC STEEL CORPORATION
CLEVELAND, OHIO

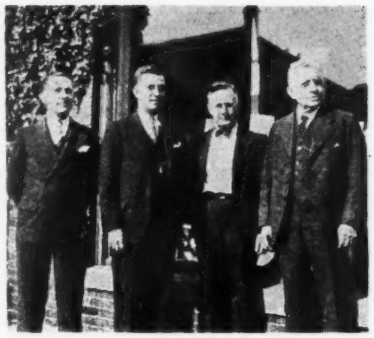
Bolts and nuts in all standard and special shapes, sizes, alloys and finishes. Standard and special rivets of all kinds. Wire rope clips. Turnbuckles. Automotive and railroad special items. Headed and threaded products for every use. Your specialties are our specialty.



To you, our friends, we extend sincere good wishes in the spirit of the approaching holidays. May 1935 bring a full measure of good health, prosperity and happiness to you and yours.

TRADE YALE MARK

THE YALE & TOWNE MFG. CO., PHILADELPHIA DIVISION
PHILADELPHIA, PA., U. S. A.



The generators who supply the power behind the Towner Hardware Company, Muskegon, Michigan. Left to right: Russell Towner, vice-president; Kenneth Towner, secretary; Thomas Erickson, manager of the mill supply department; and George Towner, president and treasurer.

only have been enthusiastically accepted by the membership of the present association, but also by many additional distributors of steel mill products. The increase in the total membership to approximately 250 at the time of incorporation will be somewhat in excess of 100 per cent of the October 1 total.

The membership at this meeting, by unanimous vote, expressed confidence in the present officers and recommended to the directors that they be continued in office until the annual meeting to be held next May. These officers are: President, H. B. Ressler, vice-president, Joseph T. Ryerson and Son, Incorporated; first vice-president, J. F. Rogers, Beals, McCarthy and Rogers. Directors at large, in addition to Messrs. Ressler, Brion, and Rogers, are: C. C. Dodge, George F. Blake Company; A. C. Castle, A. M. Castle and Company; Charles Heggie, Scully Steel Products Company; E. L. Parker, Edgar T. Ward's Sons Company; Ralph J. Stayman, Jones and Laughlin Steel Corporation; and J. J. Hill, Jr., Hill-Chase Company.

STANDARD-SHANNON LEASES ADDITIONAL SPACE

• THE STANDARD-SHANNON SUPPLY COMPANY, Philadelphia, Pennsylvania, has leased two additional floors and a portion of the basement in the two buildings now occupied to accommodate additional stock.

REX CHAIN

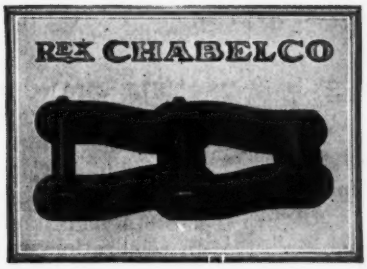
FOR EVERY DRIVE & CONVEYOR

FOR HIGH SPEED—FOR HEAVY DUTY

REX ROLLER CHAINS

—for all high speed drives—available in all standard sizes, in single and multiple strands to

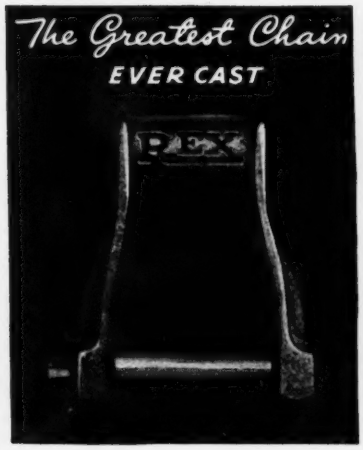
meet the requirements for practically any high speed plant or duplicate machinery drive



STEEL DRIVE CHAINS

An all steel roller chain for all types of heavy duty, with relatively high working speeds. The unit link principle by which the accurately made and machined parts of this chain are assembled makes it particularly efficient for severe service. Also made in long pitch conveyor sizes up to any practicable strength.

REX Z METAL CHAIN



CHAINS OF MANY USES

Rex Z-Metal Chain, a chain cast in all malleable patterns, is approximately 30% stronger than the best malleable iron of the same number and is much more resistant to corrosion, abrasion and pounding. It finds a wide variety of uses in both plants and machine assemblies. Where trouble is met with malleable chains it is frequently the answer—at low cost . . .

OTHER REX CHAINS

The Chain Belt Company also makes a complete line of sprocket chains for every type of use—as well as a wide line of special chains. Complete information on request.

CHAIN BELT COMPANY
1622 W. Bruce St. MILWAUKEE, WIS.

CHAIN BELT COMPANY

CHAIN & BELT CONVEYING

And Now We've Got to Think of 1935!

INVENTORY days are almost upon us. We'll soon be counting and checking—*and analyzing lines to find out the fast sellers and the laggards.*

And the lessons of 1934 will be well worth while if they lead us to intelligent planning for 1935.

Let's think about brushes and brooms for a minute.

Capital "RED CAP" Brushes and Brooms have been made and sold—through distributors—for so many years that their high quality and salability are definitely and widely established. The line is so well rounded that you can furnish practically all your customers' industrial brush and broom requirements. Our sales policy is time tested and proven.

Here is a good line for 1935. If you're not selling it now, give thought to it.

DISTRIBUTORS SERVE INDUSTRY ECONOMICALLY

INDIANAPOLIS BRUSH & BROOM MFG. CO.
ESTABLISHED 1890
126 Brush Street — Indianapolis, Indiana

WARNER MADE BUHL BUYER

• E. L. "TED" WARNER has been made a buyer by Buhl Sons Company, Detroit, Michigan, succeeding G. W. Bantzhaff.

E. L. WARNER

Mr. Warner joined the Buhl organization in 1921 in the builders' hardware department under Charles V. Heets, who was manager at the time. His contacts with large contracting builders and fund of information about the field make his promotion especially well-merited.

TULL CHANGES NAME

• EFFECTIVE November 19, the name of the J. M. Tull Rubber and Supply Company, Incorporated, was changed to J. M. Tull Metal and Supply Company.

In celebration, a special drive for business on the twentieth, designated as "President's Day," resulted in the receipt of more orders than were entered on any other day during 1934.

D. B. Benscotler, formerly with the Worthington Pump and Machinery Corporation, joined the Tull organization on December 1. His efforts will be principally in the metal sales department.

ROBERTS PLANS ADDITION

• PLANS have been drawn for an addition to the offices and warehouse of the Paul Roberts Machine Works, Pocatello, Idaho. The new building will provide a two-story warehouse, 30 feet by 65 feet, and will double the available office space. It is planned to start pouring concrete about December 1 if weather will permit.

HOOKS

DROP-FORGED FOR DEPENDABILITY

WILLIAMS' "Vulcan" Hoist Hooks and Eyebolts are drop-forged from selected steel and specially heat-treated to increase their strength and toughness and reduce liability of breakage. Each piece is proof-tested to fifty per cent beyond its rated "Safe Working Load" and stamped with an identifying mark. Look for the orange tip on hooks. . . . . All "Vulcan" Sockets are drop-forged from a fine grade of steel, providing lightness and extreme strength. Hooks, Eyebolts and Sockets can be furnished in various patterns—Eyebolts, blank or threaded. Each product fully guaranteed.

J. H. WILLIAMS & CO.
"The Wrench People"
75 Spring Street, New York

NRA CODE

Western Warehouse and Sales Office Chicago

WILLIAMS
SUPERIOR DROP-FORGED TOOLS

Works, Buffalo, N. Y.
Buy from Your Distributor

UMI

FIRST & FOREMOST IN LIGHTNESS... SPEED... EFFICIENCY

AL-LITE *Safety* HOIST

(of Alcoa Aluminum Alloy)

AL-LITE leads the way! The only hoist ever to be built of Alcoa Aluminum Alloy and embodying the newest developments in hoist design from hook to hook—AL-LITE is a genuine achievement in modern industrial design.

⅓ LIGHTER... because it is aluminum! Yet, along with this unique feature, you get a 5 to 1 safety factor. One man can handle an AL-LITE easily and quickly. Engineers call it the "first one-man hoist in history". It's the first genuinely safe hoist, too, with a patented Safety Overload Governor that automatically prevents dangerous overload.

Isn't your plant "primed" today for the AL-LITE idea? It is, if obsolete hoists are cutting into profits. Better call your distributor for full details, or write Chisholm-Moore Hoist Corp., Tonawanda, N. Y. (Division Columbus-McKinnon Chain Corporation.)

CHISHOLM-MOORE
CHAIN HOISTS TROLLEYS CM ELECTRIC HOISTS CRANES

AL-LITE

C. J. McEwan, counter man for the Hayden Supply Company, Grand Rapids, Michigan. Too often men in this job are overlooked when reasons are sought for the success of a particular distributor. They are real builders of good will.

MEMPHIS DISTRICT DISTRIBUTORS MEET

• A GROUP of twelve distributors in the Memphis district, members of the Southern Supply and Machinery Distributors' Association, met in Memphis, November 16, to discuss the code, the activities of the association and to plan for the convention to be held in Pinehurst next spring.

A committee composed of A. L. Stamps, J. E. Dilworth and Frank Pidgeon was appointed to contact purchasing agents in connection with a banquet and meeting to be held in Memphis on December 13 for the purpose of presenting to them the chart story of the Joint Merchandising Committee.

In attendance at this meeting were J. L. Hollis, Richard Alcott, T. C. Guinee, J. E. Dilworth, A. L. Stamps, T. W. Lewis, R. L. Van Dyke, Dave McCutcheon, H. W. Eccles, Frank Pidgeon, Phil Pidgeon and Alvin M. Smith.

DELTA TOOLS ADDED BY BRIGGS-WEAVER

• THE line of woodworking tools by the Delta Manufacturing Company has been taken over by the Briggs Weaver Machinery Company, Dallas, Texas.

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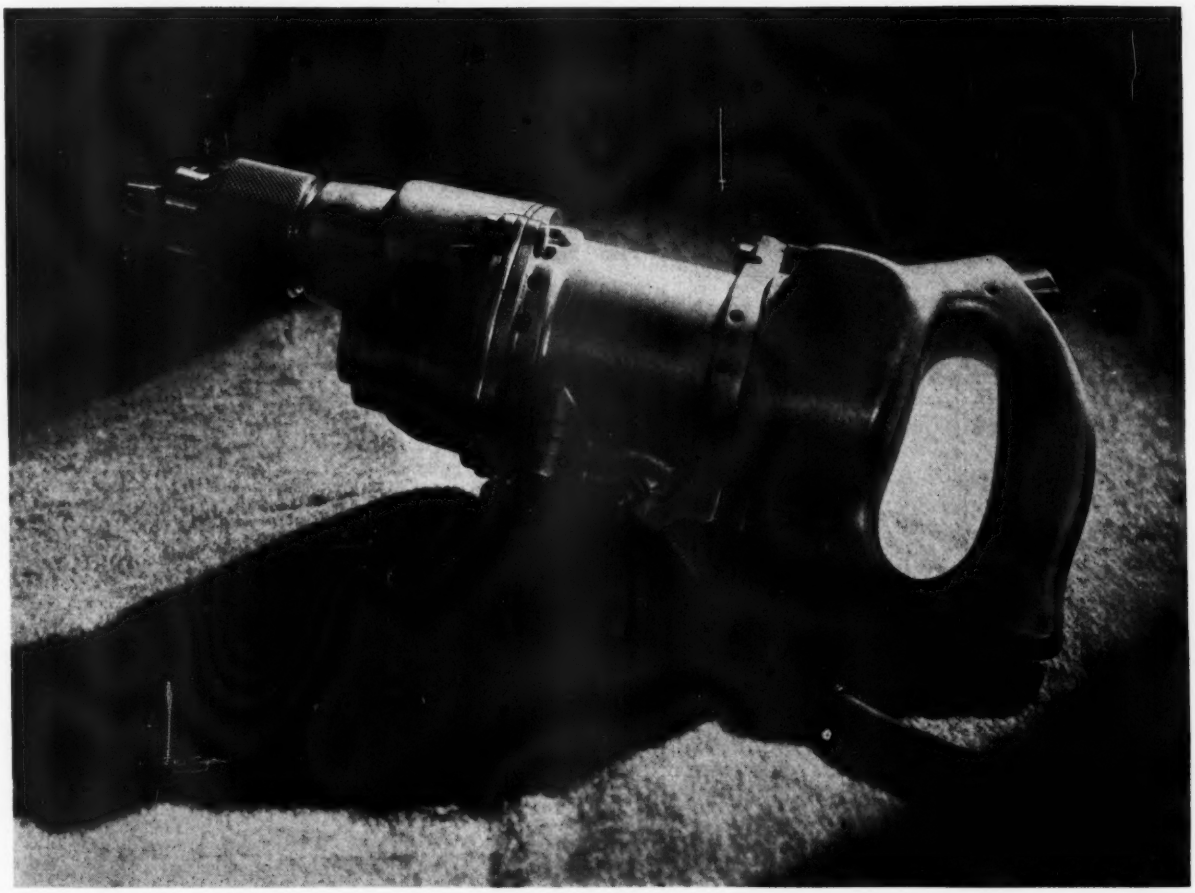


THOR LEADERSHIP

● During the past eleven months more than 150 distributors have CHANGED to selling Thor universal electric tools . . . Proof, indeed, of the increased sales that are possible with Thor . . . And proof, too, of the importance of a sincere policy that recognizes the economic value of the distributor as a selling partner in the merchandising of such products.

●

INDEPENDENT PNEUMATIC TOOL CO.

MANUFACTURERS OF *Thor* ELECTRIC TOOLS

600 WEST JACKSON BOULEVARD

NEW YORK **CHICAGO** **SAN FRANCISCO**

UMI

From JANUARY to DECEMBER there's a Demand for

MILWAUKEE
INDUSTRIAL BRUSHES

"MONOBILT" Wire Wheel Brush with Interchangeable Centers

"DI-BILT" Wire Wheel Brush

"DURA-BILT" Tampico Wheel Brush

ONCE established as a distributor for Milwaukee Industrial Brushes and Brooms, regardless of season you will enjoy a constant "repeat" business with a minimum of sales effort.

Brushes and brooms might well be called a "universal" line for every kind of work requires them. Each mill, factory, shop and institution in your territory is a prospect for Milwaukee Brushes. We have adapted them to practically every use.

We sell through distributors. Our sales policy gives the distributor every advantage, with a profit margin that makes salesmen want to sell brushes.

Let us show you how you can do a satisfactory volume on a small investment.

MILWAUKEE Curved Back Solid Block Wire Brush

GENERAL PURPOSE SWEEPING BRUSH

The MILWAUKEE BRUSH MANUFACTURING CO.
2212-2236 North 30th Street MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES AND BROOMS FOR ALL PRODUCTION AND MAINTENANCE REQUIREMENTS

Andrew Diehm, general manager, Franklin Hardware Company, New York City. In his spare time he also fulfills the duties of treasurer and purchasing agent. His company covers the metropolitan New York district.

NEW DAY CATALOG ISSUED

• R. R. DONNELLEY AND SONS COMPANY has delivered a new 256-page catalog to the John Day Rubber and Supply Company, Omaha, Nebraska. It contains inserts in color showing the Boston Woven Hose and Rubber Company's line, Gates Rubber Company's v-belts, Jenkins valves, Stanley electric tools, Williamsport wire rope and Columbian manila rope.

John Day spent considerable time putting together special information on belting in a form most useful to his customers.

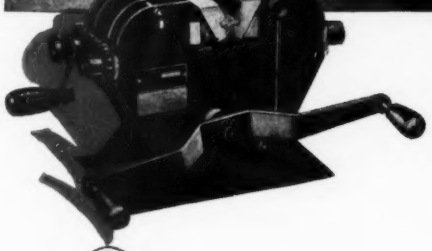
NEW LINES FOR CORBIN SUPPLY

• LINES manufactured by The L. H. Gilmer Company, The B. F. Goodrich Rubber Company and the Johnson Bronze Company have recently been taken on by the Corbin Supply Company, Macon, Georgia.

NELSON JOINS BUHL SONS

• G. H. NELSON has been added to the organization of the Buhl Sons Company, Detroit, Michigan, as manager of the electrical department.

Among the new lines being distributed by this house are the Heath and Milligan line of paints and Enduro stainless steel, a Republic Steel product.



Protection against operating delays is becoming increasingly important. In this new era of regulated labor and raw materials industry must meet a closer competitive balance with increased mechanical economies.

This is the year to drive home to every plant executive the efficiency of Clipper Lacing Equipment—the watchdog on which unbroken production schedules depend.

CLIPPER BELT LACER COMPANY GRAND RAPIDS, MICHIGAN

Clipper Hooks are 15% lower in price than any other hook made in America, yet unsurpassed in quality and durability

Clipper
Lacing Equipment

QUALITY BELT LACING

ARMSTRONG offers 7 NEW LINES

7 new opportunities for increased sales, for steady repeat business . . . lines of ARMSTRONG Quality, of ARMSTRONG completeness . . . . new tools that are news.

Turret Lathe and Screw Machine Tools

Now the savings and efficiency of the Armstrong System that have put ARMSTRONG TOOL HOLDERS in 96% of the machine shops and tool rooms have been extended to the production department.

Armide (Carbide tipped) Cutters

Ready ground to standard cutting shapes, these cutters for ARMSTRONG TOOL HOLDERS are tipped with Armide, an improved carbide. Also special ARMSTRONG Carbide Tool Holders and tool sets.

Socket and Ratchet Wrenches

All standard and new shapes, singly and in cased sets for every industrial and automotive need. Quality wrenches with improved heads that can't fall off. The most complete, most outstanding line of socket wrenches made.

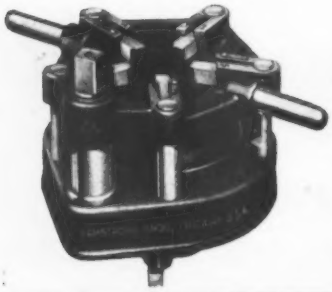
Star Drills

Improved design, better steel, *all* sizes. Stable prices.

Milling Machine Dogs

Drop-forged from special steel with alloy steel screws that will not upset. All sizes.

All Established ARMSTRONG Lines have been augmented and improved.



ARMSTRONG BROS. Pipe Tools

Receding Type Pipe Threaders, 3 types to 4-inch, and a Ratchet Pipe Reamer are among the additions to the ARMSTRONG BROS. Pipe Tool Line, already the most complete line of pipe tools made.

Write for the New B-35 Catalog

ARMSTRONG BROS. TOOL CO.

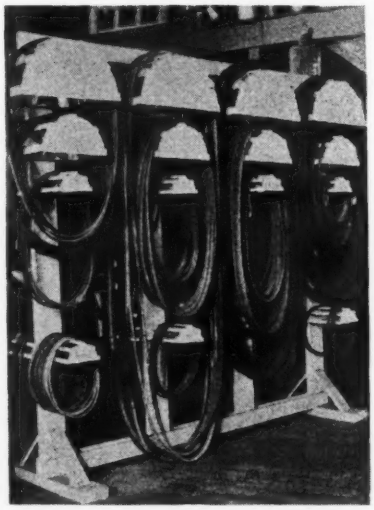
"The Tool Holder People"

305 N. Francisco Ave., Chicago, U. S. A.

New York Sales Office: 109 Lafayette St.

V-BELTS STORED ON MOVABLE RACK

• SIX to eight hundred v-belts of all the ordinary sizes, enough to make a very sizable stock, can be hung on this handy rack seen at the warehouse of the General Rubber and Supply Company, Portland, Oregon. It was designed by William H. Moser, auditor and credit manager, an old time machinery and supply salesman. Only one side of the rack shows in the picture.



The opposite side is identical and will hold the same number of belts.

Not only is the rack movable on the base, but it is put together with bolts and can be easily knocked down and transported any place. The general over-all dimensions are 8 feet wide by 8 feet high.

The members which hold the belts are segments of slatted drums, with radii suitable for the size of belt each is to carry, so that the belts will hang freely as they would on a pulley, and not become kinked as they might if hung for a considerable length of time on a peg.

The top row of hangers will each carry 15 of the larger belts without crowding, sizes from 2C10 to 1A05; second row 25 each, 1C05 down to 8B1; third row from top, 25 each, 4B6 to 5A1. The three small hangers near the bottom carry the smallest belts, within the loops of the

TESTED

A major selling point for Nicholson Files is the careful testing each one receives. Tell your customers that from first process to last Nicholson Files are tested by men with years of experience in the highest quality standards; that this experience is one reason why the Nicholson File Trade Mark stands for the World's most efficient industrial files.

At your jobber's

NICHOLSON FILE COMPANY
Providence, R. I., U. S. A.

A FILE FOR EVERY PURPOSE

larger belts—25 each, 4A6 to 3A5.

The sizes are all marked on cards and it is an easy way to keep stock, in addition to making a very good display if kept in the front of the store.

NEILL-LA VIELLE ADDS SPACE

• THE NEILL-LA VIELLE SUPPLY COMPANY, Louisville, Kentucky, has acquired additional space on the ground floor of the building it now occupies for the purpose of arranging its stock more efficiently to care for an increased volume of business. When completed, it is expected that more rapid service for customers will be available.

Steel bins are being installed throughout. Length of the new addition is such that cable and manila rope can be readily measured and handled.

KIEFABER ISSUES CATALOG

• W. H. KIEFABER COMPANY, Dayton and Hamilton, Ohio, is distributing a new 304-page catalog on industrial supplies. Cover is blue, stamped in red and black.

The catalog contains inserts in color showing Carpenter taps, Whitman and Barnes drills, Norton grinding wheels and Simonds saws and files. The book was compiled by R. R. Donnelley and Sons Company.

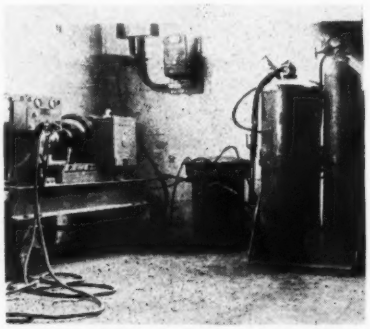
BUILDING UP IN OCTOBER

• THE October contract total for all classes of construction was larger than for any month since March according to F. W. Dodge Corporation. The October total of $135,524,800 for the 37 Eastern States compares with only $110,151,200 for September and $145,367,200 for October, 1933. Gains in construction contracts as contrasted with the totals for September were shown for each of the 13 Dodge districts, except Upstate New York, where a relatively unimportant decline was reported. Increases in awards as contrasted with October, 1933, were recorded in the New England, Metropolitan New York, Middle Atlantic, Chicago, Southern Michigan, St. Louis and Kansas City territories; losses were suffered in the Upstate New York, Pittsburgh, Southeastern, Central Northwest, New Orleans and Texas territories.

COUCH AND HEYLE BUILDS WAREHOUSE

• A NEW fire-proof warehouse has added 1700 square feet to the available storage space of Couch and Heyle, Incorporated, Peoria, Illinois. Greatly increased efficiency in the handling of chain, cable and other heavy material in this warehouse has resulted from the installation of a crane for loading and unloading.

This company has recently been appointed the exclusive distributor for Peoria and Tazewell counties by the Lunkenheimer Company, manufacturer of valves.



J. E. Haseltine and Company, Portland, Oregon, intends that its salesmen shall know what they are talking about when they try to sell welding equipment. Above may be seen a part of the equipment in the welding school maintained for salesmen, while below one of the men spends a Saturday afternoon learning by doing.

GOOD PIPE COSTS NO MORE AND IT BUILDS GOOD WILL

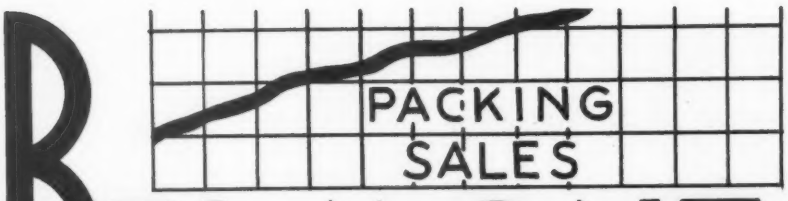
Republic Steel Pipe costs no more and it does help you get business. The reasons are evident. Republic is recognized as one of the leading pipe manufacturers of America. Pipe bearing this name meets ready acceptance. The good-will value of the prestige behind the name of the maker—prestige built up through years of conscientious manufacturing practice and continued advertising to many industries—is a valuable aid to your sales efforts.

And along with Steel, you should stock Toncan Iron Pipe—made of an alloy of refined iron, copper and molybdenum—for those types of service requiring the maximum degree of rust-resistance. Many plants use both Steel and Toncan Iron, and this, again, helps build additional sales. Furthermore, both Steel and Toncan Iron Pipe can be purchased together and shipped in consolidated cars, making an additional saving to you.

Write today for additional information on Republic Pipe.

REPUBLIC STEEL PIPE

REPUBLIC STEEL CORPORATION
GENERAL OFFICES YOUNGSTOWN, OHIO



BELMONT COOPERATION

Sends that sales curve UPWARD

The surest medium of changing the trend of packing sales from "down" to "UP" is the manufacturer's wholehearted cooperation with the distributor.

Belmont gives you this cooperation through:

1 Belmont Advertising appearing monthly in the leading industrial journals, constantly acquainting industry with Belmont superiority—building customer good will for you.

2 The Belmont Sample Kit is supplied to your salesmen, enabling them to impress upon prospects the quality of all major types of Belmont Packings.

3 The Belmont Catalog—No. 33—not only shows the complete line, but also contains comprehensive packing service recommendations to help salesmen analyze customers' requirements.

Nothing has been left out of this cooperative plan and if you are not a Belmont distributor, you are missing an opportunity. Write today for the complete Belmont sales plan.

"There is a Belmont Packing for Every Service"

THE BELMONT PACKING & RUBBER CO.
Butler and Sepviva Streets, - Philadelphia, Pa., U. S. A.

STANDARD EQUIPMENT INCREASES ACCOUNTING EFFICIENCY

• THE installation of an Elliott-Fisher accounting system has greatly increased the efficiency of accounting and bookkeeping operations for the Standard Equipment and Supply Corporation, Hammond, Indiana. It has enabled the company to get out its statements promptly on the first of the month and permitted the handling of a considerably larger volume of sales at little additional expense.

FOSS EXPANDS LINE AND FORCE

• M. L. FOSS, INCORPORATED, Denver, Colorado, has added the Minnesota Mining and Manufacturing Company's line of water and oil-mixed valve grinding compound to its line.

Two new counter clerks and two additions to the country shipping department mark an increase in the Foss organization to care for greater volume of business.

WOODBURY INCREASES LINES

• WOODBURY AND COMPANY, Portland, Oregon, is now handling the following new lines: Coffing hoists, Storm King signal torches, Knoxall hollow back socket type shovels, Beaver pipe threading tools and Carnegie abrasion-resisting steel.

The remodeling of the pipe and tube warehouse, recently completed, has resulted in more efficient and economical operation, according to S. F. Woodbury, president.

NEW YORK DISTRIBUTOR TO MOVE WAREHOUSE

• A MOVE to a larger warehouse at 139 Spring Street will be made on January 1 by Carter, Milchman and Frank, Incorporated, New York City distributor.

Two new outside salesmen have been added to the force and the lines handled have been increased by the addition of Starrett saws and Morse drills, taps and dies.

UMI

The WM. POWELL COMPANY HAS ENJOYED AN ENVIABLE REPUTATION OF PRODUCING FINE VALVES FOR 88 YEARS — NEVER CEASING TO PRODUCE THE *Highest* QUALITY IN VALVE REQUIREMENTS.

So the Standard of Quality has become

POWELL VALVES

POWELL VALVE

2525 SPRING GROVE AVENUE
CINCINNATI, OHIO.

SEASON'S GREETINGS

THE MANUFACTURER OF

BADGER POWER KING
BADGER POWER BOY
BADGER AND NEW BADGER

CAR MOVERS AND

Advance Safety Car Wrench

SENDS THESE GREETINGS

In Appreciation for the Cooperation Given Us by Our Distributors

IT HAS BEEN PROVEN TO US THAT DISTRIBUTORS AGREE THAT THE BADGER LINE OF CAR MOVERS IS A LINE OF MERIT AND THAT IT IS PROFITABLE TO SELL THEM.

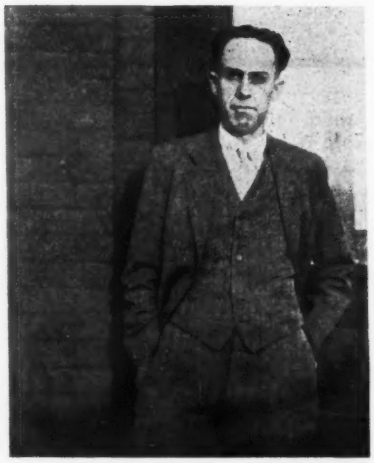
Our definite Sales Policy has brought us in close contact with distributors. This has resulted in the greatest possible benefits to both.

WE WISH YOU A SUCCESSFUL 1935

THE ADVANCE CAR MOVER CO., Inc.

APPLETON WISCONSIN

CANADIAN ADVANCE CAR MOVER CO., WELLAND, ONTARIO, CANADA



A. H. Althoff, who does the purchasing for the South Bend Supply Company, South Bend, Indiana.

NEW PHILADELPHIA DISTRIBUTOR FOR DODGE

• EFFECTIVE November 19, the Standard-Shannon Supply Company became the Philadelphia distributor for the Dodge Manufacturing Corporation, Mishawaka, Indiana, succeeding the Hood Mill Supply Company.

Ben Bailey, formerly district sales manager for Dodge in Philadelphia and more recently vice-president, Hood Mill Supply Company, will represent Dodge as district sales manager with Philadelphia as his headquarters and will assist Standard-Shannon salesmen in this territory.

McNIFF JOINS KASPER AND KOETZLE

• W. McNIFF has joined the organization of the Kasper and Koetzle Hardware Company, Incorporated, Brooklyn, New York, as a salesman, according to information received from Fred Koetzle, president.

NEW BEDFORD HOUSE APPOINTED BY ALEMITE

• RUSSELL, MILHENCH AND HARRISON COMPANY, New Bedford, Massachusetts, has accepted appointment as distributor for Alemite fittings and lubrication guns. A campaign employing mail stuffers and newspaper advertising will supplement the efforts of the salesmen on this new line.

UMI

Thermoid products are engineered with the same spirit of achievement that dams a mighty river.

The vision of the engineer sees the great dam stretch across the gorge. With the rise of the waters he sees blossoms in the desert. He sees power generated for cities still unborn. It is the same vision of progress that enables Thermoid products to meet the advanced demands of industry.

Back of every Thermoid product—beltings, hose, packings—stands a vast experience in the field, an intimate knowledge of the uses of each which permits it to be individually engineered for the job to be accomplished.

Look for the Thermoid label. It is your guarantee of finest quality, your assurance of enduring performance. *Buy by that quality mark!*

And remember these two facts: The Thermoid line carries a worth while margin of profit and is backed by a liberal jobber policy.

THERMOID RUBBER CO.

Factories and Main Offices

TRENTON, NEW JERSEY

Thermoid

BELTING
HOSE AND PACKINGS

AN *Improved* WRIGHT HOIST

21 POINTS OF SUPERIORITY

In all capacities — 300 Pounds to 40 Tons

Master engineering — scientific design — finest materials — backed by long years of experience have gone into the development of the new, improved Wright High-Speed Chain Hoist.

In the new Wright Hoist there are 21 points on which it is superior to all former models. Summarized, those 21 points mean:

1—GREATER EFFICIENCY 2—LONGER LIFE
3—INCREASED USEFULNESS

Send for an illustrated catalog showing a cut-away view of the new Wright Hoist. See for yourself why the 1934 Improved Wright is sturdier, more efficient and positively rust-proof. Remember—no advance in price.

WRIGHT DIVISION of MANUFACTURING COMPANY, AMERICAN CHAIN Inc. • York, Penn.

NRA CODE

ACCO

HAND HARDWARE ADDS MEN AND LINE

• HARRY M. BREWER has joined the Hand Hardware Company, Elizabeth, New Jersey, as a salesman of industrial and contractors' supplies. Frank Ralph, also recently joined, will work as an inside salesman.

Parker-Kalon drive screws have been added to this company's line. It is planned to have the salesmen specialize on this item from time to time and to support their efforts through a mail campaign.

DAYTON LINE HANDLED BY SMITH BROTHERS

• THE SMITH BROTHERS HARDWARE COMPANY, Columbus, Ohio, has accepted appointment as distributor for Dayton Cog-Belts and Day-Steel pulleys.

A concerted drive will be made on the line during the next six months. M. O. Williams, representative of The Dayton Rubber Manufacturing Company will assist the Smith Brothers salesmen.

TOWNER PUSHING STERLING GRINDING WHEELS

• SINCE the addition of Sterling grinding wheels to its line, the Towner Hardware Company, Muskegon, Michigan, has had one salesman specializing on this item in an attempt to put trial wheels in every plant in the territory.

A report from G. B. M. Towner, president, indicates that the new overhead steel-handling equipment and the newly-outfitted offices, recently installed, have done much to increase efficiency and lower cost of operation.

BALDWIN HALL DISTRIBUTES ABRASIVE LINE

• CLIPPER abrasives, manufactured by Sandpaper, Incorporated, Waltham, Massachusetts, are being handled in Syracuse, New York, by the Baldwin Hall Company. The sale of the line is being pushed by factory men working with Baldwin Hall salesmen and by advertising in the New York Purchasor.

UMI

You have seen pictures of Notre Dame's four horsemen in identical attitudes. Not to be outdone by the metropolitan dailies we present the four horsemen of the Mill Supplies Corporation, Lansing, Michigan. Left to right: B. L. Smith, bookkeeper; H. F. Bierbower, clerk; E. E. Scott, purchasing agent; and L. L. Kowalk, office manager.

PATERSON HOUSE ADDS DAYTON LINE

• THE DAYTON RUBBER MANUFACTURING COMPANY'S line of Cog-belts and Day-steel pulleys is being distributed in Paterson, New Jersey, by H. W. Mills and Company.

E. L. Eska, formerly with the Sharon Belting Company, and three others have recently been added to the sales organization.

TEUSCHER PULLEY HANDLES GOODYEAR

• THE TEUSCHER PULLEY AND BELTING COMPANY, St. Louis, Missouri, has accepted appointment as distributor of Goodyear v-belts, flat rubber belting and hose.

A new salesman has been employed and assigned the task of specializing on the above products and shafting, both Cumberland and commercial.

BOYKIN ADDS BELTING LINE

• LEATHER belting manufactured by the Charles A Schieren Company and v-belts made by the Gates Rubber Company have been added to the stock of the Boykin Tool and Supply Company, Atlanta, Georgia.

LOUGHEAD DISTRIBUTES DU PONT PAINTS

• THE JOSEPH E. LOUGHEAD COMPANY, Kalamazoo, Michigan, is now distributing Du Pont industrial paints for maintenance works, according to J. E. Loughead, president.

This Message is Addressed to Lunkenheimer Distributors and Their Salesmen

Customer Service

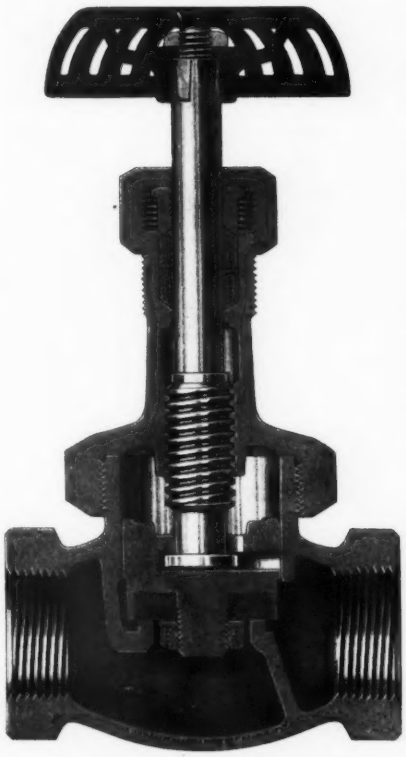


Fig. 123 "N-M-D"
Renewable Non-Metallic Disc
150 lb. SP.—300 lb. GLP.
Illustrated in Booklet F-593

It is one thing to be *known* as the source of supply for the complete quality line of Lunkenheimer Valves, Boiler Mountings and Lubricating Devices.

It is another to be *equipped to serve* the industrial plants of your territory on their immediate requirements.

Your own interests demand that you have on hand ready for quick delivery, those Lunkenheimer Products for which there is a general need in your territory.

When your customers need valves or some of the many specialties in the Lunkenheimer line, they want, and have a right to expect prompt delivery. That is part of the service you render as a distributor.

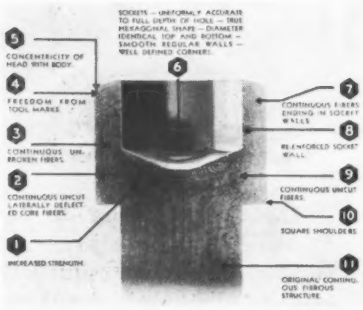
Analyze your market for Lunkenheimer Products, and check your stocks to see that you are carrying all items that will enable you to serve your trade properly.

THE LUNKENHEIMER CO.
"QUALITY"
CINCINNATI, OHIO, U. S. A.
NEW YORK CHICAGO BOSTON
PHILADELPHIA SAN FRANCISCO
EXPORT DEPT. 318-322 HUDSON ST., NEW YORK

SELL QUALITY · SELL LUNKENHEIMER

SALES POSSIBILITIES IN NEW PRODUCTS

SOCKET SCREW

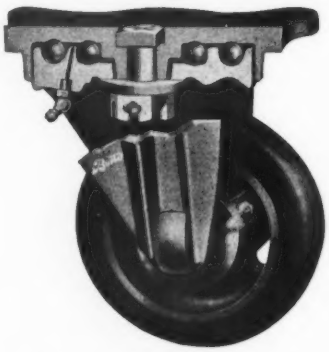


● THE method employed in the manufacture of "Fibro Forged" socket screws is said to result in continuous uncut fibers, neither severed nor broken, from one end of the screw to the other. In combination with this engineering accomplishment, the manufacturer emphasizes controlled grain size and atmospherically controlled electrical heat treatment. Major features are pointed out in the illustration.—Holo-Krome Screw Corporation, New Britain, Connecticut. MILL SUPPLIES, December, 1934.

WRENCH AND TOOL SET

● THIS new wrench and tool set consists of 72 sockets, wrenches and tools, all of which were carefully selected after a thorough investigation into the requirements and desires of the average mechanic. Many of the open-end wrenches are made of Zenel. The "Double B" set contains 14 double-hexagon standard series (½-inch square drive) sockets, with openings of from $\frac{7}{16}$-inch to 1-inch, as well as three extra deep (spark plug) sockets, two square opening sockets and eight handles and attachments, all of the standard series. Open-end and box wrenches included are four Zenel TuType wrenches with openings of $\frac{7}{16}$-inch, $\frac{9}{16}$-inch, ⅝-inch, six Zenel engineers' wrenches with openings ranging from ⅜-inch to 1-inch, four tappet wrenches (two of each size) with openings of ½-inch, $\frac{9}{16}$-inch, ⅝-inch and $\frac{11}{16}$-inch, also four double-hexagon box wrenches with openings of ½-inch, $\frac{9}{16}$-inch, ⅝-inch, $\frac{11}{16}$-inch and ¾-inch and a right-angle wrench with openings of ½-inch and $\frac{9}{16}$-inch. A popular selection of chisels and punches has also been made, consisting of three flat chisels, a cape and diamond point chisel, two pin punches, two solid punches, a long taper punch, a center punch and a pry or pinch bar. In addition, seven screw drivers are included, as follows: pocket sizes, two electricians' (one with Neon tube in handle) two round shank, one square shank and an adjusting screw driver. Miscellaneous items consist of gasket hammer, a 1-pound ball pein hammer and two pliers of the adjustable and ignition types, also ½-inch square drive stud wrench and a drag link socket.—Bonney Forge and Tool Works, Allentown, Pennsylvania. MILL SUPPLIES, December, 1934.

RUBBER TIRED CASTERS



● A NEW vulcanizing process of bonding rubber tires on metal caster wheels has been used in the manufacture of these casters. The principal advantage claimed for this new vulcanizing process is the flexibility it affords for truck caster service. Two types of compounds are used. The soft compound is especially suited for irregular floors. This type tire, being extremely resilient, envelops irregularities in the floor surface, thus providing cushioning for truck and load. The semi-hard compound is recommended for use on comparatively smooth floors where extreme over-loads must be met. Both the soft and semi-hard vulcanized rubber tires are designed for free rolling and are available in many types and sizes.—Bond Foundry and Machine Company, Manheim, Pennsylvania. MILL SUPPLIES, December, 1934.

PORTABLE ELECTRIC BLOWER

● A multi-purpose portable electric blower, particularly adapted to blowing dust and dirt from hard-to-reach windings of electric motors, generators and switchboards, is said to have, in all, over one hundred practical uses. It is readily convertible to a powerful suction cleaner or an effective sprayer. Can easily be carried in one hand and is said to operate for about two cents per hour. —The Clements Manufacturing Company, Chicago, Illinois. MILL SUPPLIES, December, 1934.

UNIT HEATER

● THIS new model unit heater, which is made in 16 steam and 14 hot water sizes, is of the suspended, propeller fan type, said to be the most economical of fuel and power and the most flexible in operation. Units are suspended directly from the steam line, the only support required being the supply connection. This direct suspension, which simplifies relocation, is combined with 360-degree rotatability which makes it easy at any time to change the direction of the air stream.—Modine Manufacturing Company, Racine, Wisconsin. MILL SUPPLIES, December, 1934.

BRONZE GATE VALVES

● AMONG the features enumerated for these new bronze gate valves, which include inside screw, traveling spindle patterns with screwed and flanged ends for various working pressures, are: Close contact at all times between bonnet threads and spindle, liberally proportioned body of electric furnace bronze with free passages, a double-faced solid wedge and precision machined seating surfaces and an extra deep stuffing box. Guides cast in body keep wedge in line for perfect seating and when valve is fully open, the wedge is entirely out of the line of flow. Valves can be repacked under full pressure when in the fully open position.—Jenkins Brothers, New York, New York. MILL SUPPLIES, December, 1934.

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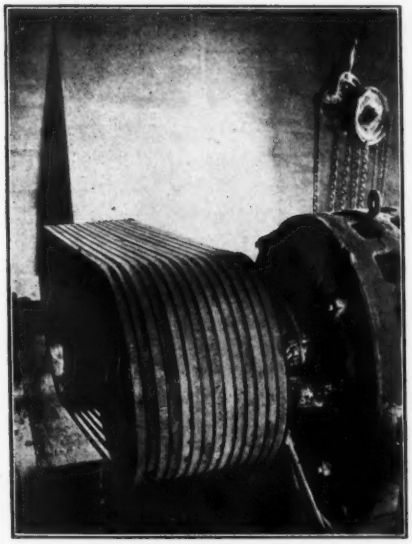
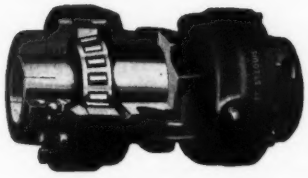


This is a typical installation where Medart is reducing power transmission costs. Medart V-Belt and other installations are doing this throughout industry.

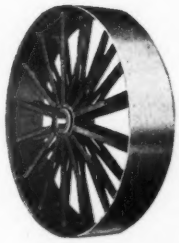
A four-high cold-strip mill in which the Medart Roller-Bearing Pillow-Block Pedestals, with Timken Bearings, are the largest ever installed—the shaft being approximately 12" diameter.

HELPING YOU SELL

Medart will help you sell transmission equipment by helping you sell reduced power transmission costs! By giving you and your customers prompt service on special and stock requirements! By giving you the selling assistance of Medart's Engineering Department! By backing you up with a complete line of "Everything in Power Transmission and Special Equipment"—all designed for long life and economical service . . . Write for Catalogs 56-G, 56-T, 56-V, 56-B. Address Dept. M.

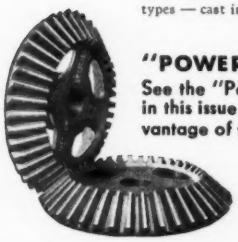


Medart-Timken Ball and Socket Hanger Bearing



Medart Pulleys—Steel and Iron, also Wood—Furnished in all standard types. Sizes up to 16 ft. diameter, 84 in. face.

Medart Hangers—anti-friction or ring-oil bearings—all types—standard, universal, four and two-point adjustment.



Left: Medart Gears can be furnished in a complete range of sizes and types — cast iron, machine molded and cut — spur, miter and bevel.

MEDART and the "POWER TRANSMISSION COUNCIL"

See the "Power Transmission Council" advertisement in this issue. If you and your salesmen are taking advantage of this—SEE MEDART for Sales Assistance and Service on EVERYTHING IN POWER TRANSMISSION AND SPECIAL EQUIPMENT.

MODERN GROUP-DRIVE PTC

THE MEDART COMPANY, *General Offices and Works:* 3514 DeKalb St., St. Louis, Mo.

Engineering Sales Offices: Cincinnati, Cleveland, New York, Philadelphia, Buffalo, Chicago, Pittsburgh, New Orleans, San Francisco, Los Angeles, Dallas, Denver, Charlotte, Birmingham, Milwaukee

Immediate Service on

MEDART

EVERYTHING IN POWER TRANSMISSION & SPECIAL EQUIPMENT

NEW UNBRAKO NEW

KNURLED
SOCKET HEAD CAP SCREW

U. S. and Foreign Pats. Pending

The Knurled "Unbrako"

Fingers become geared to the knurled head so they can't slip, which makes the knurled "Unbrako" a real time and labor saver.

Exhaustive investigations have satisfied us that the *Knurled "Unbrako"* will become the favorite Socket Head Cap Screw with the Die makers, Tool makers and Mechanics in general and, therefore, better stock the *Knurled "Unbrako" now.*

The Knurled "Unbrako" costs no more than the old-style smooth-head "Unbrako" Cap Screw—size for size—and is absolutely equal to it in strength, accuracy and quality.

When ordering be sure to call it by its right name—The Knurled "Unbrako".

Get our "Unbrako" Price List.

Old Smooth-Head

Fingers slip and slide. Hard and slow to drive.

Order by Name—
Specify the Knurled "Unbrako"

FREE SAMPLES

STANDARD PRESSED STEEL CO.

BRANCHES
BOSTON
CHICAGO
DETROIT

JENKINTOWN, PENNA.
BOX 4

BRANCHES
NEW YORK
SAN FRANCISCO
ST. LOUIS

UMI

SALES POSSIBILITIES IN NEW PRODUCTS

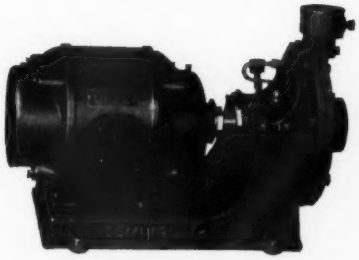
RUBBER TAPE

● BECAUSE the usual 110-volt current always has been considered a menace to life and property, building codes require that rubber tape for electric wire splices contain more pure rubber than is found in ordinary friction tape. Cotton cloth, a good conductor of electricity when moist, usually constitutes 60% of the content of friction tape. This new mending and electric tape is 90% pure rubber and a single thickness has tested to 8,000-volts. It has been tested and listed by the Underwriters' Laboratories and is expected to fulfill wide ranges of industrial uses. A unique display carton is provided.—The B. F. Goodrich Company, Akron, Ohio. MILL SUPPLIES, December, 1934.

BRONZE GATE VALVES

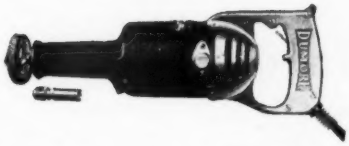
● A NEW line of rising stem heavy standard bronze gate valves is designed for 150-pound working steam pressure and 250-pounds working water, oil or gas pressure. This valve, known as Figure 45, is a companion type to the new Figure 23 with stationary stem which was introduced earlier in the year. The operating mechanism employs solid wedge discs which are simple, heavily proportioned and accurately machined, and with no small quick-wearing parts which might cause trouble in service. A flexible connection is provided between the disc and the stem so that the stem will not bind or spring when the valve is closed. The stem is made of a bronze composition with high tensile and torsional strength, and has a large number of contact threads in the bonnet. The bonnet hexagon has been made extra-large and close to the body so that when a wrench is applied for installing or disconnecting, there will be no danger of distorting the bonnet. Additional features are the deep stuffing box with gland and square section moulded packing rings, the large non-heating malleable-iron hand wheel which is secured to the stem by a nut, and the heavy, wide pipe-end hexagons with generous number of threads.—The Kennedy Valve Manufacturing Company, Elmira, New York. MILL SUPPLIES, December, 1934.

CENTRIFUGAL PUMPS



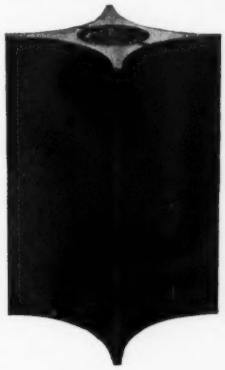
● THE outstanding feature of this new line of close-coupled, side suction centrifugal pumps is, as its name implies, that any make of standard ball bearing motor of the open, enclosed, splash-proof or explosion-proof type can be used. Due to the unique connection of motor and pump shafts the necessity of special motor end bells and shafts is eliminated. Pump and motor are mounted on a substantial base plate eliminating any unbalanced overhang of pump or motor and the cradle mounting of pump permits expansion when handling hot liquids without disturbing the alignment of the unit.—The Deming Company, Salem, Ohio. MILL SUPPLIES, December, 1934.

HAND GRINDER



● A NEW powerful hand grinder is designed for production grinding of large and small dies, moulds for cleaning up weld spots and similar work where power is required. Although the motor develops 1/5-horsepower, the tool only weighs 7-pounds. A unique feature is an effective air filter which keeps all the grinding dust and dirt out of both motor and bearings. The filter is inclosed in the end cap and can easily be removed, cleaned and replaced. Grinder has a vacuum cleaner type of ventilating fan which prevents heating even when the tool is used on production work. The tool is equipped with three ball bearings and operates at a speed of 14,250 revolutions per minute. Can be supplied with either a spade type of handle as shown in the illustration or with a handle mounted on the side.—The Dumore Company, Racine, Wisconsin. MILL SUPPLIES, December, 1934.

SURFACE PLATE SQUARE



● THIS surface plate square, as will be noted from the accompanying illustration, has both ends square with the sides. It is substantial and rugged and of a form most convenient for use on a surface plate. Its one-piece construction is not subject to changes from handling and from small variations in temperature. Weight and shape are such that it is not easily upset. Made of hardened steel.—Brown and Sharpe Manufacturing Company, Providence, Rhode Island. MILL SUPPLIES, December, 1934.

SOCKET SET

● A NEW socket set that is useful for work on passenger cars, buses, trucks, tractors, farm and industrial machinery contains an assortment of both the standard series (½-inch square drive) and heavy duty series (¾-inch square drive) sockets, handles and attachments. Fourteen standard series sockets, eight handles and attachments and a drag link socket are included, as are ten heavy duty sockets and three handles and attachments. — Bonney Forge and Tool Works, Allentown, Pennsylvania. MILL SUPPLIES, December, 1934.

INVESTIGATE

the Strong Distributor Plan Behind

MAUREY

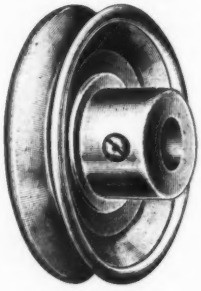
F. H. P. STEEL V-PULLEYS

The Quality V-Sheave Line That "Has No Equal"

It means *profits* for distributors, because it includes:

1. The world's largest line of single groove, Steel V-Pulleys.
2. Small stock investment.
3. Complete protection.
4. Passing along of orders received direct.
5. Fast service on distributor orders.
6. A good margin on every sale.

With this outstanding line, you can do a big sales job in an enormous and immediate market without heavy sales expense. Write *now* for complete information.



MAUREY
Universal Steel
V-Pulleys

True running. Extra heavy hubs from solid steel or malleable iron.

No die cast hubs used.

Every pulley finished in Silver Aluminum Lacquer.

MAUREY MANUFACTURING CORP.

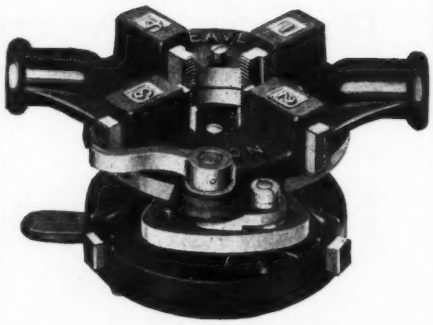
Name changed from
UP-TO-DATE MACHINE WORKS
2907-15 South Wabash Avenue
CHICAGO, ILL.

You'll Have It This Month!

The Directory Edition *of* MILL SUPPLIES

Completely revised
and up-to-date

DIE STOCK

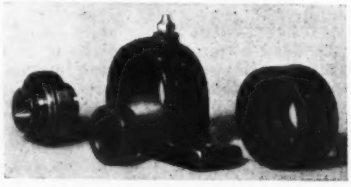


● ESPECIALLY adapted for use on brass and copper pipe, this new die stock, made in both 1¼-inch and 2-inch models, is said to be equally suitable for threading iron, steel, wrought iron or aluminum pipe. Die throw-out makes it unnecessary to reset dies, insures uniform threads and saves backing off over finished thread. Employs segmental type dies which can be resharpened over and over again. Segments are interchangeable. Each set of dies threads two sizes (except ⅛) thereby reducing bother of changing dies. Unit is made of malleable iron. Packed in an individual fiber-board carton.—The Borden Company, Warren, Ohio. MILL SUPPLIES, December, 1934.

BUCKET TRAPS

● HIGH capacity and compactness are obtained in these new bucket traps by use of a lever. This is placed in the top of the trap so the bearings always will be in clean water protected from wear by scale and grit. Not affected by pulsating pressures: no wire-drawing because cause for it has been removed; handles air and other noncondensible gases. Discharge is intermittent under low medium loads and continuous under high loads. An open bucket is used as the source of power for opening and closing the valves. By means of lost motion between the valve and lever, sudden and complete opening, and quick and tight closing are obtained. Oil or grease floating on condensate does not affect operation; quickly adaptabale to different pressures by changing seat only; entire mechanism removable without taking trap from line.—Nason Manufacturing Company, New York, New York. MILL SUPPLIES, December, 1934.

PILLOW BLOCK



● THE bearing is of the wide inner ring type with self-locking collar. It has a deep groove, large-ball design which affords high load cap-

acity, thrust as well as radial. The housing is of cast iron with ribbed base, compactly designed so as to possess the maximum strength within its limited physical dimensions. It is prelubricated at time of assembly, assuring attention-free operation for at least a year. The lubrication is renewable by means of grease tubes as the proper fitting is included in the housing. The insulation is a cork pad, shown in the illustration, which fits into the housing and around the bearing itself to insure silent operation. It is treated so that no separation of particles can occur. It acts also as a seal against the escape of lubricant or the entrance of dirt. The features claimed by the manufacturer of this cork-insulated ball bearing pillow block are, compactness with ample capacity, freedom from friction, self-alignment, ease of assembly, and silence.—Fafnir Bearing Company, New Britain, Connecticut. MILL SUPPLIES, December, 1934.

HOLDING TOOL

● A HANDY screw-holding, gripping, inserting, removing and picking-up tool is designed for use on screws, washers, nuts, bolts, taper pins, valve pins and many similar objects. The tool consists of four fingers on a tube, which operate within a second tube. The four fingers open to grasp the object when pressure is brought on the plunger. On release of the pressure, the strong spring causes the fingers to close tightly around the object. The object is then turned out or removed. The tool is made in three sizes with 4-inch, 6-inch and 8-inch reach. It is finished in full nickel.—Bonney Forge and Tool Works, Allentown, Pennsylvania. MILL SUPPLIES, December, 1934.

METAL CLEANER

● FOR removing oil, grease, dirt, smut, pigments, and abrasives from metal and other surfaces.

Get Your Customers to Buy Cutters on Their *REAL* Cost

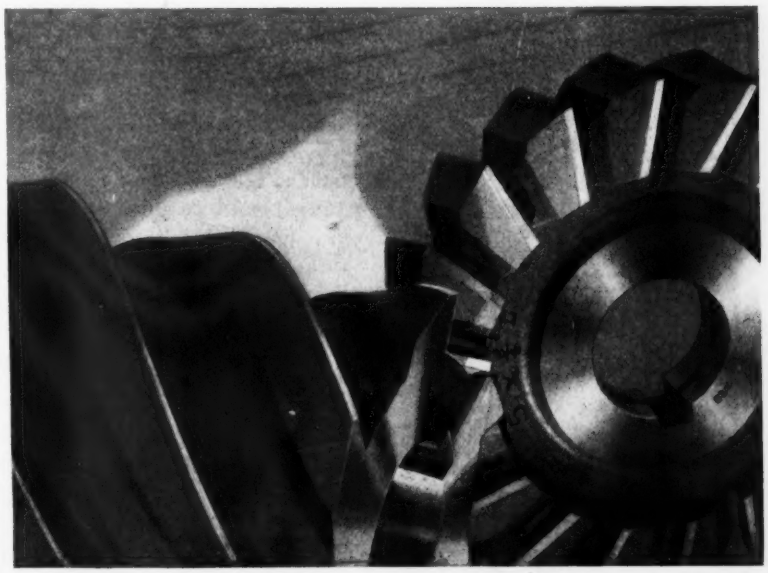
Four major factors, more important than purchase price, determine every cutter's real cost — its economy to the man who uses it.

Explain to your customers how expensive a cutter can be that requires frequent sharpening—(1) the cost of time lost while cutters are being removed and (2) the cost of time lost in replacing with sharp cutters. Point out (3) the cost of lost production while the machine is held up changing cutters, and (4) the actual cost of the sharpening of the cutters themselves.

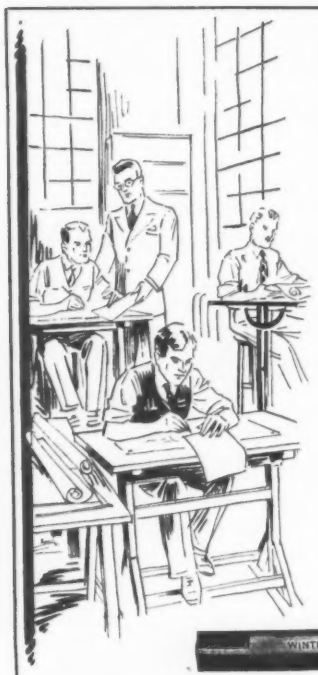
Brown & Sharpe Cutters are a decided influence in keeping cutter and overhead costs low for the manufacturer and in keeping cutter sales up, for you. Brown & Sharpe Mfg. Co., Providence, R. I.

DISTRIBUTORS SERVE INDUSTRY ECONOMICALLY
BUY IT FROM THE DISTRIBUTOR

B·S



Brown & Sharpe Cutters
MODERN—EFFICIENT—KEEP COSTS LOW



THE TRUE WORTH

of a product can be measured by the calibre of the distributors who handle it.

Many leading distributors in the country have successfully sold WINTER TAPS AND DIES over a long period of years.

Customers favor such a combination.

Write for particulars

THE WINTER BROTHERS COMPANY
(A complete line of TAPS and DIES)
WRENTHAM, MASS.
Division of the National Twist Drill & Tool Co.,
Detroit, Michigan

Model WWD — Water Cooled Duplex, with pressure lubrication. Any type control.

MODEL WWC — Water Cooled Duplex, with pressure lubrication. Completely automatic including all controls.

EASIER SALES

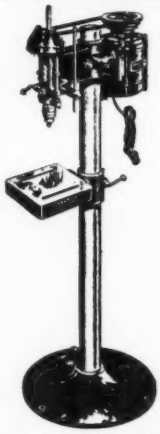
Profits on sales depend on the salability of the product. That's why Quincy Compressors are built to sell. . . . They combine 16 advanced design features—including Timken Bearings, Pressure Lubrication, Automotive-type Pistons, Lynite Connecting Rods — each one a strong sales point in favor of operating efficiency, long service and reduced production costs wherever air is used. . . . Ask us to show you how and why Quincy Compressors will sell — increase your profits—add satisfied customers to your ledgers.

QUINCY Compressors

QUINCY COMPRESSOR CO.
303 MAINE STREET — QUINCY, ILL.
205 W. Wacker Drive — Chicago
30 Church Street — New York

Claimed to render all oils and greases readily soluble in water, to be harmless to workers, have higher flash point than kerosene. Advocated for cleaning machinery in maintenance work and for pre-cleansing metal parts to be finished. Available as Magnusol Number 73 Solvent (ready mixed) or as Magnusol Number 73 Base to be mixed with kerosene by user. Applied by painting or spraying on surface to be cleaned.—Magnus Chemical Company, Garwood, New Jersey. MILL SUPPLIES, December, 1934.

FLOOR DRILL

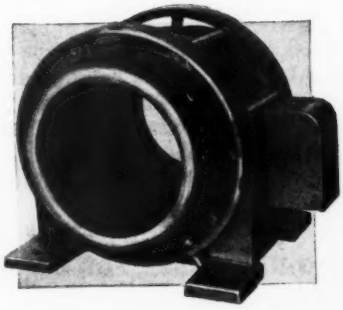


● A NEW floor drill, built throughout with ball bearings, has a capacity of ½-inch. It is particularly adapted to drilling iron or steel and can be used on wood, as spindle speeds range from 850 revolutions per minute to 3750 revolutions. Drill is 68-inches high and is equipped with a table which can be tilted to any angle. Table is slotted for bolting down work. Spindle has a vertical travel of 4-inches. Equipped with ½-inch geared three-jaw adjustable chuck. Furnished with 1/3-horsepower ball-bearing motor.—Champion Blower and Forge Company, Lancaster, Pennsylvania. MILL SUPPLIES, December, 1934.

PAINT FLUID HOSE

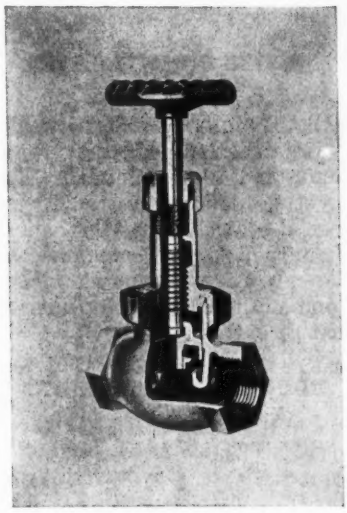
● THIS new type of paint fluid hose is said to successfully resist all commercial solvents. The tube is made of a newly developed compound possessing all of the strength and flexibility of rubber, but being free of the usual tendency to soften, slough off, break apart or disintegrate when in contact with oils or solvents. As a result, this fluid hose eliminates the well-known fault found with rubber stocks which slough off and permit particles of rubber to mix with the paint and spoil the finish. Couplings are said to hold better in this hose because the special composition tube stays in place and maintains a firm grip on the coupling at all times. Hose is of braided and moulded construction. It is extremely light and flexible and its cover will resist rough wear. It is made in ¼-inch, $\frac{5}{16}$-inch, ⅜-inch, $\frac{7}{16}$-inch, and ½-inch inside diameter and can be furnished in any length up to 500-feet.—Electric Hose and Rubber Company, Wilmington, Delaware. MILL SUPPLIES, December, 1934.

SEAL CLAD MOTORS

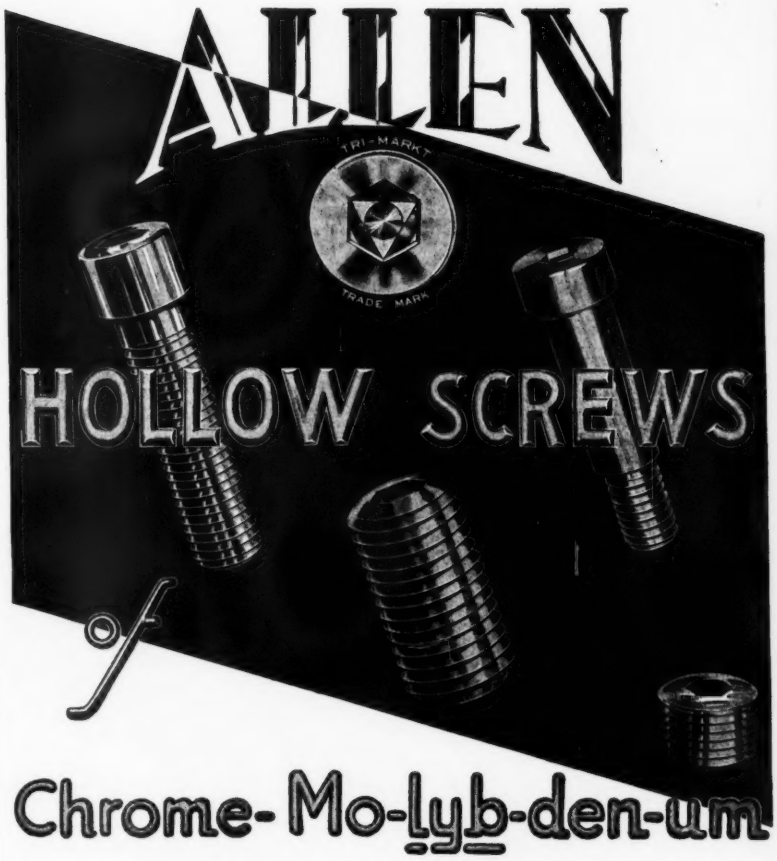


● THESE new "Seal Clad" squirrel-cage motors are of open type construction with permanent coil protection. Hard, smooth Bakelite shields are sealed over the stator coils, giving protection against metallic dust, grit, oil, moisture, mild acids and other agents injurious to insulation. They are built in ratings up to 25-horsepower, 1800-revolutions per minute. Motors have cast steel frames, twistless and distortionless stators, silver-brazed rotors, oil and dust-tight sleeve or anti-friction bearings. —Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin. MILL SUPPLIES, December, 1934.

GLOBE AND ANGLE VALVES



● MANUFACTURER of a new line of renewable bronze angle and globe valves claims several outstanding features. The radial seat, between body and bonnet, insures a tight joint and perfect alignment of all parts, which decreases wear. The disc ring serves efficiently in the control of steam and hot and cold water. Disc holder is of standard dimensions, permitting the use of other standard makes of disc rings. Stem is of rolled rod bronze, averaging 65,000-pounds tensile strength. Union nut is heavy bronze with large hexes for a firm wrench grip.—The Fairbanks Company, New York, New York. MILL SUPPLIES, December, 1934.



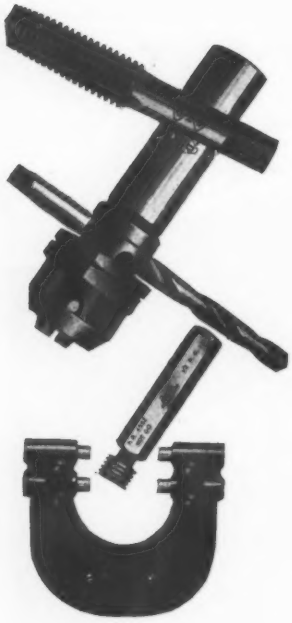
From the jobbing standpoint, *cost of selling* largely determines the *net profitableness* of a line. While selling only through the Jobber, ALLEN has never left to the Jobber the heavy end of the selling load.

Constructive field work, aggressive advertising, constant product-improvement go on as our continuing obligation to you. For the hollow screws most *in demand* are the most in line with your promotional policy.

Hardly less important to you is the stability of our jobbing connections. Allen Jobbers who work for business, remain to enjoy the profits on the business: — they have nothing to fear of direct selling.

We build, basically, around the Distributor and the structure is built to endure in an era of upsets!

THE ALLEN MFG. COMPANY
HARTFORD, CONN. U.S.A.



There will be more Taps, more "Acorn" Dies, more Twist Drills, more Gages sold in 1935—Business is looking better.

Your share will be larger if you handle "Greenfield."

GREENFIELD TAP AND DIE CORPORATION
GREENFIELD, MASS., U.S.A.

New York 15 Warren Street | Chicago 611 W. Washington Blvd. | Detroit 228 Congress St., W.

MISSISSIPPI DISTRIBUTOR ADDS ELECTRICAL SUPPLIES

• A STOCK of electrical supplies has been added to the line of plumbing and industrial supplies carried by the General Supply and Machine Company, Meridian, Mississippi. An addition has been made to the sales force to handle sales in this department.

TWO NEW LINES FOR OWEN RICHARDS

• THE LINE of saws and tools manufactured by Henry Disston and Sons, Incorporated, and Hazard wire rope are now being distributed by the Owen Richards Company, Incorporated, Birmingham, Alabama.

DISTRIBUTES PALMER-BEE LINE

• HORTON MACHINE WORKS, INCORPORATED, Elmira, New York, has recently taken on the Palmer-Bee Company's line of elevating and conveying machinery, according to J. R. Horton, president.

BIGGS PUMP PUSHES VALDURA

• LATE in November, the sales organization of the Biggs Pump and Supply Company, Lafayette, Indiana, started to put special effort behind the sale of Valdura paints, a line made by the American Asphalt Paint Company. This line was taken on just recently.

BOUCHARD ADDS LINES

• JOHN BOUCHARD AND SONS COMPANY, Nashville, Tennessee, is now distributing the following new lines: Wall rope, Rockwood pulleys and drives and welding accessories manufactured by the Sight Feed Generator Company.

CINCINNATI HOUSE HANDLES PREMIER BRONZE

• BRONZE bearing metal, manufactured by the Premier Bronze Corporation of St. Louis, is being distributed in the Cincinnati territory by The Bingham Tool and Supply Company.

ESSMUELLER DISTRIBUTES SCHIEREN BELTING

• THE ESSMUELLER MILL FURNISHING COMPANY, St. Louis and Kansas City, Missouri, has taken on the representation of leather belting manufactured by the Charles A. Schieren Company. This line will be handled at both establishments.

RAYL HANDLES NEW LINES

• THE line of abrasives on paper and cloth manufactured by Sandpaper, Incorporated, and finished bronze bushings and bearings made by the Johnson Bronze Company are now being distributed by The Rayl Company, Detroit, Michigan.

INDUSTRIAL SUPPLY EXPANDING

• NECESSITATED by the addition of three new lines and generally increased volume, the Industrial Supply Company, Keokuk, Iowa, is leasing larger floor space and subletting some of the smaller units.

NEAL ADDS NEW LINE

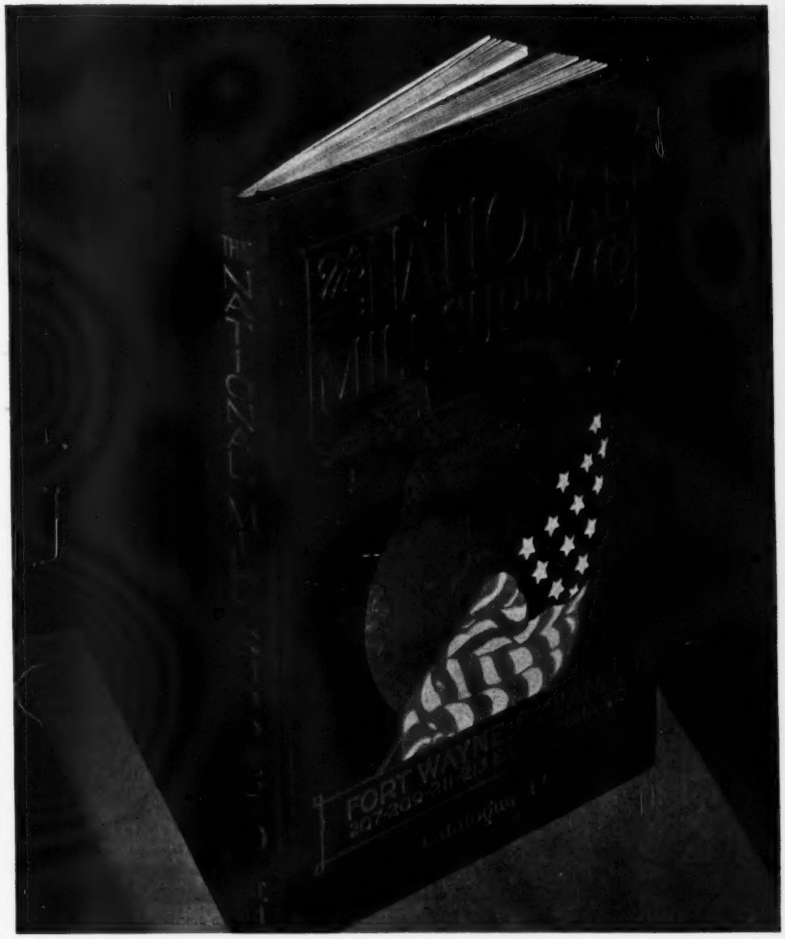
• R. C. NEAL COMPANY, INCORPORATED, Buffalo, New York, is now distributing "Bang-Pruf" air blow guns, manufactured by the C. A. Claflin Company, Boston, Massachusetts. An exclusive arrangement in the New York State territory has been worked out.

CENSUS REPORTS WASTE SALES

• SALES of processed waste in 1933 were $13,498,635, according to a preliminary report compiled from data collected for the Biennial Census of Manufacturers. This total shows a drop of 9.6% when compared with 1931, which in turn was 54.6% less than 1929.

NEW LINES FOR R. B. WING

• BUFFALO fire extinguishers and Acme "Proxlin" and "Fleet-x" automobile finishes are among the new lines recently added by R. B. Wing and Son Corporation, Albany, New York.



The new supply catalog No. 34 now being distributed by The National Mill Supply Company of Fort Wayne, is another Donnelley Repeat Order Catalog.

How Much Will It Cost Your Business If You Don't Have Up-to-Date Catalog Representation Next Year?

• Through the Donnelley catalog compiling service you can issue a new catalog of your own selection of goods, quickly and economically, and with the least possible demand on your own organization.

• Full information will be yours for the asking, without obligation.

The Lakeside Press

R. R. DONNELLEY & SONS COMPANY

350 EAST 22ND STREET, CHICAGO

• • • TO HELP OUR DISTRIBUTORS

we are carrying our advertising in the list of magazines shown. These are the leading industrial magazines, *reaching* . . . .

• • • *117,743* PLANT MEN

who represent the cream of the nation's industrial buying power. The Schieren advertising is definitely tied-in with the spreads of the Power Transmission Council (see pages 2-3, this issue Mill Supplies), a program of vital importance to the Mill Supply Trade as means of developing new power transmission business. We invite correspondence from active Mill Supply men who would like to become more fully acquainted with the scope of this program and Schieren Products. Write us. . . . . .

Chas. A. Schieren Company
Tanners and Manufacturers of
LEATHER BELTING, PACKINGS and SPECIALTIES
Main Office and Factory:
33 FERRY STREET NEW YORK
Branches and Distributors in All Principal Cities

MEMBER OF THE POWER TRANSMISSION COUNCIL

HOW Bond HELPS YOU MAKE A PROFIT DOLLAR

1 QUALITY PRODUCT

2 COMPLETE LINE

3 CONSUMER ADVERTISING Consistent advertising over a long period of years has made Bond Casters known throughout all industry. They are recognized by your customers as the leading line of industrial truck casters. When your salesmen offer Bond Casters, your customers will heartily approve the suggestion. And the fact that you carry the Bond Line will add to the prestige of your company with your mill and factory customers.

4 PROFITABLE MARGIN

Write for our folder, *"How Bond puts more Profit Dollars on your Balance Sheet"*.

1523-A Series (*Patented*)

Bond TRUCK CASTERS AND POWER TRANSMITTING MACHINERY
REG. U.S. PAT. OFF.
BOND FOUNDRY & MACHINE COMPANY
MANHEIM, LANC. CO., PENNA.
PHILA. OFFICE: 617 ARCH ST. N. Y. C. OFFICE: 30 CHURCH ST.

MILBURN PUBLISHES NEW CATALOG

• THE ALEXANDER MILBURN COMPANY, Baltimore, Maryland, has just issued its 1934-1935 catalog, a small-size, 33-page booklet illustrating and describing this company's line of oxyacetylene apparatus, paint spray equipment and portable carbide lights.

DATA BOOK ON LAMPS PUBLISHED

• THE "Data Book for Lamp Purchasers" has just been published by the Wabash Appliance Corporation, lamp manufacturer of Brooklyn, New York. Brief, simplified lamp data is presented to enable the average purchaser to select lamps best suited to particular needs. A copy can be secured by writing the manufacturer.

NEW BOSTON WOVEN HOSE CATALOG ISSUED

• A NEW 46-page catalog, in full color, has been published by the Boston Woven Hose and Rubber Company. The complete line of mechanical rubber goods manufactured by this company is fully described and illustrated, the information on each product including the specifications and construction in addition to recommended applications.

A SYSTEM FOR FIGURING COSTS BY COMMODITY GROUPS

(Continued from page 14)

both in calculating total weight and for distributing physical handling costs. The second group of movement costs (2B) should be allocated to commodity groups on the basis of the clerical detail involved, and the fairest practicable basis for allocating these expenses seems to be according to the number of invoice lines billed. Here again we are confronted with the problem of making the small orders bear their fair proportion of costs incurred. The correction that should be made will

Mill supply houses who know how FACTORY helps them to sell say . . .

"WE like to see the lines we sell advertised in this paper". . .

Naturally—for when a product is being advertised in "Factory" it's being sold—in their territory—in your territory—in any territory where there are worthwhile manufacturing plants.

Take the territory you serve. You'll find "Factory" in the worthwhile manufacturing plants that are your best customers. And you'll find it reaching the key men in charge of operations in those plants—the men who directly or indirectly buy the things you sell. They subscribe to "Factory"—obviously place a real value on what each issue of "Factory" brings them. More of these plant operating men subscribe to "Factory" than any other business publication.

Advertising in "Factory" by the manufacturers of the lines you carry is helping you to make sales.

Note: Manufacturers and advertising agencies fully recognize this unusual value of "Factory". In 1934, 239 manufacturers advertised in "Factory"—which is far more than used any other paper reaching the general manufacturing field.

FACTORY MANAGEMENT AND MAINTENANCE

A McGraw-Hill Publication ABC · ABP 330 West 42nd St., New York, N. Y.

The Odds are Still in Favor of Quality

Today—as in the past—industry purchases unions on the dictates of experience, on their time proven record of performance and demonstrated ability to serve longer.

Dart Unions, time tested and time proven have demonstrated their ability without question.

That is why they are easy to sell.

The DART *Bronze* to *Bronze* principle is two bronze seats, ball joint properly ground in.

DART UNIONS BRONZE-TO-BRONZE

TEES—UNIONS—ELLS—SCREWED—FLANGED

E. M. DART MFG. CO., PROVIDENCE, R. I.

Sales Agents:
The Fairbanks Company, New York and at all branches

Canadian Factory:
Dart Union Company, Ltd. Toronto, Canada

and Investigate

We may sound "smart alecky," but we're really trying to be honest and sincere in our advertising.

We have built pumps for over 75 years—what we know to be GOOD pumps. Our plant is ideally laid out for straight-line, efficient, large-scale production. Inspectors are trained to do a thorough job. The engineering staff is composed of men who know how to properly design pumps.

This set-up definitely benefits YOU. It means that when you handle Roper pumping equipment that you are selling quality products at the lowest possible price. It means that the pump you sell will give real satisfaction. After all, what more can one ask?

We build a complete line of rotary pumps—hand and power. Call on us at any time you need pumping equipment—anything from pitcher spouts up to high pressure, hydraulic outfits.

Write TODAY for the Roper selling plan and Bulletin MSR-1.

Pumps for

HAND TRANSFER (Bulletin MSR-2)
GENERAL USE (Bulletin MSR-3)
COOLANT (Bulletin MSR-4)
HYDRAULIC POWER TRANSMISSION (Bulletin MSR-5 & 6)
BULK STATIONS and REFINERIES (Bulletin MSR-7 & 8)
HEAVY LIQUIDS (Bulletin MSR-9)

GEO. D. ROPER CORP. - Rockford, Ill.

ROPER *Rotary* PUMPS

DEPENDABLE - SINCE 1857

vary in individual cases, and can only be determined after a detailed study. To suggest a method, however, the number of invoice lines in each order could be increased by one, thus changing the ratio between orders with varying numbers of invoice lines so that the orders with fewer invoice lines will carry a greater proportion of these expenses.

The costs grouped under "contact" are those costs incurred in contacting and securing reimbursement from customers. The first group (3A) should be allocated to commodity groups on the basis of gross profit, as these costs are all incurred with the object of increasing gross margin. The second group (3B) should be allocated on the basis of sales volume, as they vary with sales. The expense account, Interest on Accounts Receivable, should be set up in the general ledger similarly to Interest on Inventory Investment with offsetting credit to a nominal interest account if capital invested is owned.

Keeping in mind the factors of allocation outlined in the three previous paragraphs, let us now turn to the charts and forms, shown on pages 11 to 14, necessary to carry out the mechanics of cost allocation. Chart I is a list of commodities carried in stock with similar items grouped. Chart II as mentioned above shows all of the expense accounts with the indirect expenses grouped to facilitate cost allocation. Form A is a sales sheet or copy of invoice, with columns provided for weight and merchandise cost of sales. Form B is a monthly commodity tabulation sheet, one to be used for each commodity group, on which details from Form A are readily summarized. Form C is a monthly analysis sheet for all commodities to which the statistics from Form B are transferred. Form D is a yearly tabulation of expenses by months, grouped according to Chart II. Form E is a yearly commodity profit and loss sheet, tabulated by months, a separate one to be

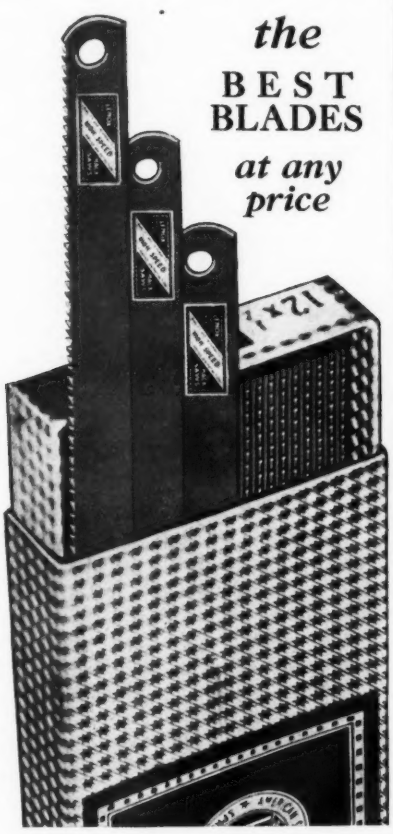
Toughness...
Performance
Uniformity...

• These three qualities, so important in Good Hack Saw Blades, are so pronounced in . .

LENOX
HIGH SPEED
HACK SAW BLADES

• that these "Blades in the Plaid Box" are known as industry's modern standard for

the
BEST BLADES
at any price



AMERICAN SAW & MFG. CO.
Springfield, Mass., - - - U. S. A.

compiled for each commodity group.

The order of procedure is first to calculate the merchandise cost of each item or each similar group of items on every Form A for the month under study. The details required by the last five columnar divisions of Form B are posted to the corresponding Form B commodity sheet from each and every Form A, using Chart 1 as a guide. The statistics of space occupied and inventory investment are taken by physical check or from inventory records. A summarization of the columns of all B forms is then made, and the totals transferred to Form C on the line of the respective commodity group. Form C columns are totalled, and ratios of each commodity to the total in each column are calculated and inserted. The general ledger should contain an expense account for each commodity group to which direct costs can be charged. These costs are to be posted to Form D along with the indirect costs which are grouped according to Chart 2. The final summary profit and loss sheet, Form E, sets forth for each commodity group by months the following statistical information: sales, merchandise cost of sales, gross profit—from Form B; direct expense—from Form D; grouped allocable or indirect expenses—calculated by applying to each allocable expense entry on Form D the ratio shown on the line of the respective commodity group on Form C under the heading of the allocating factor. When this has been completed for all commodity groups, the summary of expenses against the gross profit will indicate the net profit or loss for each commodity group.

It is not necessary that this study continue throughout the year; it would usually be sufficient to select two or three typical months and the results would very probably be representative of the entire year. The facts disclosed by this survey should more than compensate for the effort expended in deriving and compiling the necessary data.

"Get This Letter off at once, Miss Smith."

Safety Belt-Lacer Co.,
Factories Bldg.,
Toledo, Ohio

Gentlemen:—

We are seriously considering stocking and pushing SAFETY BELT HOOKS, beginning January first.

We understand you have a special offer to make to new jobbers who place orders during December for January first delivery. Kindly forward us full details promptly.

Very truly yours,
ALERT SUPPLY CO.

SPECIAL OFFER ON
Safety REG. U.S. PAT. OFF.
BELT HOOKS

Never Mind a Letter
Just sign below, tear off this advertisement and mail now!

Signed _____

City _____

State _____

MANUFACTURERS TELL US

Of personnel changes, new sales plans, new literature, changes in quarters, new distributors appointed and other facts of interest

RIDGE TOOL ENLARGES PLANT

• THE RIDGE TOOL COMPANY, Elyria, Ohio, has recently more than doubled the size of its plant by new brick construction. Both new factory and offices are equipped with all modern facilities for the manufacture and handling of an increased volume of business.

PATTERSON JOINS ALUMINUM INDUSTRIES

• NOBLE R. PATTERSON, who for the last 11 years has been associated with the International Harvester Company, at its Fort Wayne plant, has joined the organization of Aluminum Industries, Incorporated, Cincinnati, manufacturer of Permite Products, as sales engineer. Patterson, who assumed his new duties November 5, succeeds A. D. Chandler, who died last September. He will contact customers in Indiana, Illinois, Wisconsin, Minnesota, Iowa and Missouri.

Patterson, who began his career with the B. F. Goodrich Company, was with that concern two and a half years before joining the Harvester Corporation, where he served his first five years as field engineer. He then was promoted to research engineer, continuing in that capacity for six years and until his resignation to join the Permite organization.

OSTER-WILLIAMS OPENS NEW YORK OFFICE

• OSTER-WILLIAMS of Cleveland, Ohio, manufacturer of pipe and bolt threading equipment, has just opened an office and display room at 292 Lafayette Street, New York City.

The establishment will be in charge of the firm's district manager, H. B. Van Osten.

The display floor will have on it one each of practically every type of machine and tool manufactured including the large Rapiduction, Wilco and number 300 series machines and the portable units, the Willie Williams, Power Boy and Tom Thumb. All machines will be available for actual threading demonstrations.

In attendance at the annual conference of the sales force of The Republic Rubber Company were the following: Standing, left to right: J. J. Chamblee, J. F. Vogt, S. R. Colucci, M. W. Clark, F. H. Howard, V. C. Steck, H. H. Sprinkle, M. C. Meyer, L. A. Yoder, G. J. Wyrough, A. A. Schley, A. W. Carriere, N. M. Grove, W. E. Barnard, C. R. Conklin, G. L. Smith, C. P. Nolte, J. C. Kearns, J. H. Vandawarker, C. W. Stanton, C. R. Maloney. Seated: J. P. Bird, assistant manager mechanical sales; E. M. Ikert, treasurer; R. M. Gattshall, manager distributor sales; H. P. Schultz, manager mechanical sales; O. S. Dollison, vice-president in charge of sales; H. W. Croysdale, vice-president in charge of production; A. Brill, development manager; C. H. Zieme, service engineer; and H. F. Morneweck, assistant manager mechanical sales.

TYSON MAKES EXECUTIVE CHANGES

• CHARLES E. STUART, president and treasurer of Tyson Roller Bearing Corporation, Massillon, Ohio, resigned as of November 1, after five years spent in organization and operation of the plant which manufactures the Tyson Cageless tapered roller bearing. Mr. Stuart will remain on the board of directors.

Russell E. Colgate, former chairman of the board, has been elected president and treasurer, succeeding Mr. Stuart. Ralph H. Maxson is executive vice-president in charge, of operations; George C. McMullen is vice-president in charge of sales; George Neupower, secretary and E. R. Earnest, assistant treasurer and purchasing agent.

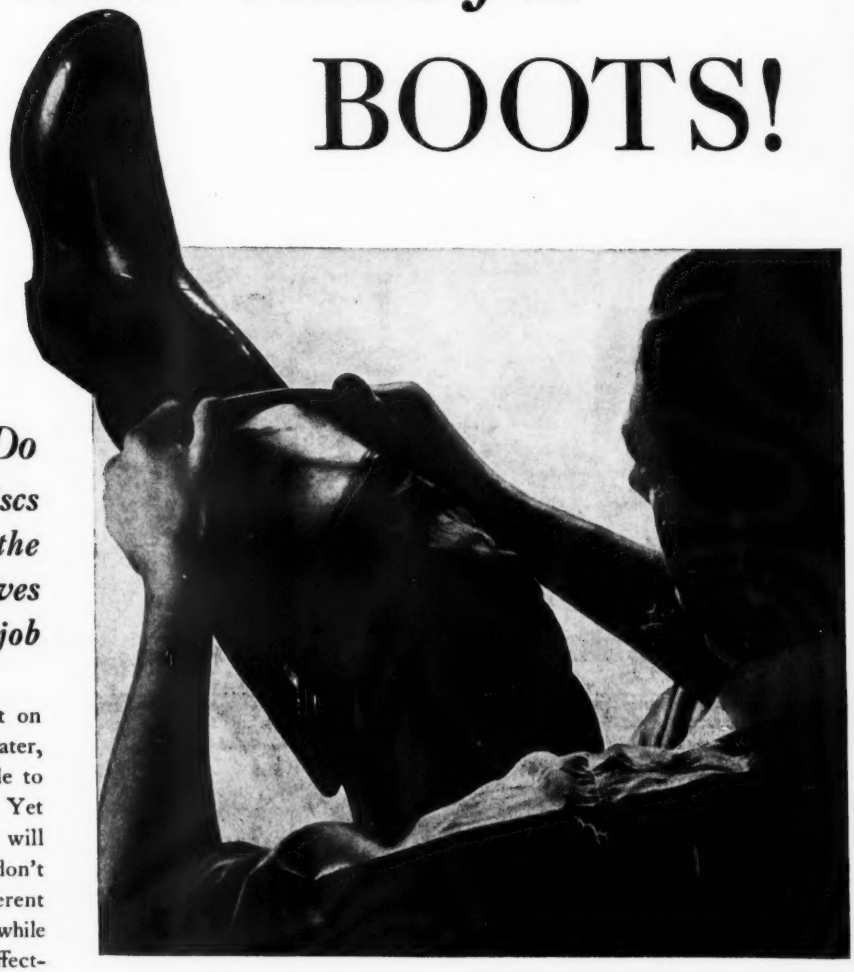
REPUBLIC STEEL APPOINTS DISTRICT MANAGER

• APPOINTMENT of Robert J. Working as district sales manager in Cincinnati for Republic Steel Corporation was announced November 7 by N. J. Clarke, vice-president in charge of sales. Mr. Working succeeds W. A. Peck as head of the Cincinnati office.

Formerly in the sales department of United Alloy Steel Corporation at Canton, Ohio, Mr. Working was placed in charge of the Cincinnati district office of the Central Alloy Steel Corporation in 1927. Following the Republic merger in 1930, he was made assistant district sales manager of the Cincinnati office.

UMI

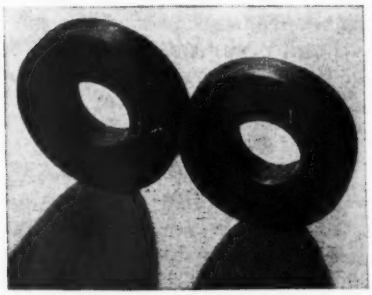
Deep water calls for BOOTS!



Overshoes Won't Do

Nor will 'overshoe' Discs give your customer the best service from valves that do a 'hip-boot' job

YOUR customers wouldn't put on overshoes to go wading in deep water, even though overshoes are made to keep feet dry just as boots are. Yet many valve users you call on will put any disc in a valve. They don't realize that there are many different types of Jenkins Discs, and that while all have the general purpose of effecting a leak-tight seat, only the disc correctly suited to operating conditions will get the best service out of a valve.

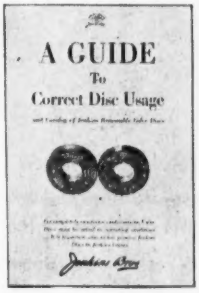


You can do customers a "good turn" by showing them how to get improved valve service through using the right disc for the job. Encourage them to specify service conditions when ordering discs, or better still, suggest that they give the "disc compound" number as recommended in either our "Guide to Disc Usage" or the Jenkins Catalog.

JENKINS BROS., 80 White Street, New York, N.Y.; 510 Main St., Bridgeport, Conn.; 524 Atlantic Avenue, Boston, Mass.; 133 No. Seventh St., Philadelphia, Pa.; 822 Washington Boulevard, Chicago, Ill.; JENKINS BROS., Limited, Montreal, Canada; London, England

Guide To Disc Usage for you to Give Customers

Send for a supply of our helpful new "Guide to Disc Usage". It opens into a wall chart which every valve user should have. All of the Jenkins Disc Compounds are covered, and recommendations show the service for which they are made. The Guide will be appreciated . . . take advantage of it.



Jenkins Valves

BRONZE — IRON — STEEL SINCE 1864

In choosing lines to sell, select those that have made their mark in the industrial world

Through many years of conscientious manufacturing and consistent and truthful advertising, every mill and factory manager knows the full value he gets in

DESMOND DRESSERS AND CUTTERS *and* **SIMPLEX** STEEL SLIDE VISES

Four distinct types—a cutter for every grinding wheel dressing and truing job. On the market 25 years. No distributor's catalog complete without them.

Right in principle, in quality of materials, and in workmanship. The exclusive steel slide gives them long life and complete user satisfaction.

Build for the future. Begin now to sell these trade winning lines. Just write, "We're interested. Send catalogs."

The Desmond-Stephan Mfg. Co.

URBANA, OHIO

Jones

V-Belt Drives

TAKE advantage of the growing market for JONES V-Belt Drives. They are manufactured under the nationally known Geist Patent No. 1,662,511.

So quiet in operation they meet the requirements of schools, hospitals, public buildings; so positive in their action they measure up to such heavy industries as mining and rock crushing.

Jones V-Belt Drives are clean, quiet, smooth running, compact. They're slipless, long lasting and low in maintenance expense. Profitable to industrial distributors because of the general approval by industry of this new type of drive.

Write for bulletin and an outline of the Jones distributor policy.

W. A. JONES FOUNDRY & MACHINE COMPANY

4401 Roosevelt Road *CHICAGO, ILLINOIS*

ALSO MANUFACTURERS OF JONES TIMKEN PILLOW BLOCKS, CUT AND CAST TOOTH GEARS, PULLEYS, FLEXIBLE COUPLINGS AND SPEED REDUCERS

BAILEY-BURRUSS PLANT ACQUIRED BY LINK-BELT

• ANNOUNCEMENT has been made by Link-Belt Company, of Chicago, of the purchase of the physical assets of the Bailey-Burrus Manufacturing Company, Atlanta, Georgia. All divisions of Link-Belt's Atlanta sales office, heretofore located in the Haas-Howell Building, are being moved to the Bailey-Burruss plant, which will henceforth be known as the Atlanta Plant of Link-Belt Company.

The new combined operations

I. H. Barbee, head of the newly acquired Atlanta plant of the Link-Belt Company.

will be headed by I. H. Barbee, a Link-Belt engineer of long experience, who is being transferred from the Philadelphia plant of the company. Mr. Barbee was formerly the manager of Link-Belt Company's office in Atlanta. R. L. Lowder and J. R. Martin of the Link-Belt Atlanta office will continue as part of the new Atlanta organization, as will J. O. Bailey of the Bailey-Burruss Manufacturing Company.

FILE SALES SHOW INCREASE

• A SLIGHT increase in value of products made in the file manufacturing industry, from $6,658,906 in 1931 to $6,920,570 in 1933, was reported by the Bureau of the Census on November 13. This data is based on a preliminary report compiled from information collected for the Biennial Census of Manufacturers.

GILMER APPOINTS NEW YORK STATE MANAGER

• THE L. H. GILMER COMPANY, Tacony, Philadelphia, has announced the appointment of Earl V. Snyder as district manager for New York State, excepting the New York City area, for its industrial belts and belting for power transmission.

Mr. Snyder comes to the Gilmer Company with a wide engineering experience throughout the country, having formerly been identified with the American Engineering Company, Babcock and Wilcox Company and the International Motor Company.

NEW MANAGER FOR FERRY CAP AND SET SCREW

• CHARLES B. LANSING, president, National File Company, Anderson, Indiana, has been elected general manager of the Ferry Cap and Set Screw Company, Cleveland, Ohio. Present officers and directors continue without change.

For some time Mr. Lansing was associated with Otis and Company in an engineering capacity. He has been in charge of the National File Company for the past two years.

DISTRIBUTOR APPOINTED BY BABCOCK AND WILCOX

• BABCOCK AND WILCOX COMPANY has appointed Nashville Machine and Supply Company distributor for its line of tubing in that section of Tennessee.

EDGE TOOL SALES UP IN 1933

• A PRELIMINARY report compiled from data collected in the Biennial Census of Manufacturers in 1934, reveals the fact that 1933 sales of the principal items of edge tools were greater than those in 1931.

As an example, sales of axes, adzes and hatchets were $3,208,432 in 1933 as compared with $2,217,321 in 1931, while chisels, gauges, planes, draw knives, machetes and similar items accounted for $2,234,493 in 1933 against $1,863,008 in 1931.

Are you making Brass Fittings one of your major lines?

PROVIDING adequate piping equipment for conducting gas, oil and air in this modern industrial world is no small industry in itself. These three essentials are carried through metal pipe and tubing for thousands of different uses, and millions of brass fittings are needed to make the necessary connections.

So, Mr. Distributor, if you are not majoring in brass pipe and tubing fittings, you are letting profits slip by you to some distributor who is awake to his opportunities.

Imperial Brass has specialized in fine brass fittings and can furnish a complete line of the various types and styles of fittings for all types of tubing.

The SETTE Faucet, one of Imperial's brass specialties

Sette Faucet — for oil, gasoline, kerosene, alcohol, anti-freeze solutions, lacquers and many other liquids—has metal to metal seat and lever handle, is automatically self-closing, easily locked in open or closed position and not affected by heat or cold. Has ¾" iron pipe thread with large hex.

•

Write us for full information on Imperial Fittings

•

IMPERIAL BRASS MANUFACTURING CO.
511 South Racine Ave., Chicago, Ill.

The Reconstruction Program is under way. It will pay you to see that

COFFING HOISTS
"THE UNIVERSAL TOOLS"

No. 1

are overhead in the mills, shops, factories, garages and on construction work all through your territory.

Coffing Hoist users are satisfied because these modern, inexpensive tools are giving them fast, easy, efficient and low cost performance every day.

No. 2 No. 3 No. 4

COFFING HOISTS are sold by many distributors. They will not conflict with other hoists you may be selling. Instead they will bring you additional chain and electric hoist business.

1 The Electric Coffing Hoists: Capacities: ¼, ½, 1 and 2 tons. Weights: 75 to 85 lbs.

2 Model A—¾ ton. Weight: 14 lbs., and Model F—1½ ton; Weight: 25 lbs.

3 Our Model F.T. Capacity: 3 tons; Weight: 34 lbs.

4 Model Z—Capacity: 6 tons; Weight, 65 lbs.

COFFING HOIST COMPANY
319 E. Van Buren St. *Danville, Ill.*

OSTER

ANOTHER PRODUCER

WILLIAMS TOOL CORPORATION

"CHIP CHASER" DIE STOCKS

Take a good look at this snappy pipe threading outfit. It's a sales producer and we don't mean maybe!

Yes Sir! The Oster-Williams "CHIP CHASER" sells because it is the handiest, easiest-to-carry and most complete small ratchet tool set built for threading the smaller sizes of pipe.

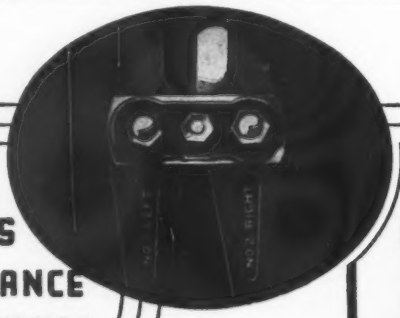
There are three models of CHIP CHASERS: No. 00 is the complete Ratchet Set mounted in a carrying case as illustrated. No. 00 is furnished with 1/8" to 3/4" die-heads. Then there's the No. 000 Three-Way type with 3/8" to 3/4" die-heads and the No. 001 for 1/2" to 1 1/4" sizes.

CHIP CHASERS are fast sellers and they belong to a whole family of popular pipe and bolt threading equipment and pipe welding tools.

Stocks and Dies—Pipe and Bolt Machines—Pipe Welding Tools

OSTER-WILLIAMS

Sales Office: 2041 East 61st STREET, CLEVELAND, OHIO. Factories: ERIE, PA., and CLEVELAND, OHIO.



for
REPAIRS
MAINTENANCE
EMERGENCIES
PRODUCTION

★

A complete line of powerful, portable, two hand cutting tools with a thousand and one industrial uses.

Cut 3/4" bolts, heavy rods, cable, chain, wire, etc. Split nuts. Anywhere on the job as well as in the plant or at the work bench. A complete line of sizes and models to meet every requirement.

Invaluable in production maintenance, emergency repairs, etc. Special tools built for special requirements.

PORTER-HKP BOLT CLIPPERS

Write for catalog

Sold by Supply houses everywhere

H. K. PORTER, INC. Everett, Mass.

C. G. Davis, president, American Saw and Manufacturing Company, and D. W. Northup, president, Henry G. Thompson and Sons Company, snapped at the recent hardware convention in Atlantic City.

McLEAN WITH BLACK AND DECKER

• H. N. McLEAN is now covering eastern Tennessee and the Carolinas for the Black and Decker Manufacturing Company, manufacturer of portable electric tools. He works out of the Atlanta, Georgia, office.

STEELE JOINS STEEL AND TUBES

• M. B. STEELE, until recently a sales engineer working out of the Cleveland office of Steel and Tubes, Incorporated, is now assisting E. T. Glass, sales manager of the New England division, with headquarters in Boston. Mr. Steele is a graduate of Worcester Polytechnic Institute.

TOOL SALES SHOW 1933 DECREASE

• PRELIMINARY reports compiled from data collected in the Biennial Census of Manufacturers, indicate that the sale of tools, not including edge tools, machine tools, files or saws, in 1933 was $28,147,847 as compared with $36,352,133 in 1931, a decrease of 19.6%.

Typical products included in this grouping are: Hammers, wrenches, pliers, rules, shovels, forks, rakes, hoes, pucks and mattocks.

UMI

TIMKEN APPOINTMENT MADE

• THE TIMKEN ROLLER BEARING COMPANY has announced the appointment of Whitley B. Moore to the position of general manager of the industrial division. Mr. Moore, who is a mechanical engineer, was graduated from the University of Michigan in 1918, going immediately into service in the U. S. Navy. At the close of the war, he joined the engineering staff of The Timken Roller Bearing Company. He soon became interested in the selling phase of engineering and became associated with the Timken sales engineering staff, where his work quickly received recognition.

In 1921, Mr. Moore was transferred to the Pacific Coast in charge of sales in that territory. In 1924 he was brought back to Canton to take the position of assistant general sales manager of the industrial division. In 1930 he was made sales manager, and has remained with the company in that capacity up to the time of his present advancement.

PEXTO APPOINTS DOLAN

• JOHN F. DOLAN, Cleveland, Ohio, has been appointed assistant sales manager of the tools and hardware division by The Peck, Stow and Wilcox Company. Mr. Dolan has been with the company since 1910. He will continue to solicit business personally in addition to taking over his new duties.

NEW YORK BELTING ANNOUNCES NEW CATALOG

• THE New York Belting and Packing Company, 1 Market Street, Passaic, New Jersey, has just issued a new 96-page catalog, covering its complete line of mechanical rubber goods, including belting, hose, packing, mats, friction tape and chute liners.

The catalog, the size of which is 8½ inches by 11 inches, contains not only information on the construction and service features of the company's products but considerable technical information valuable to the man who has anything to do with the selection of mechanical rubber goods.

Here is an Important Sales Point!

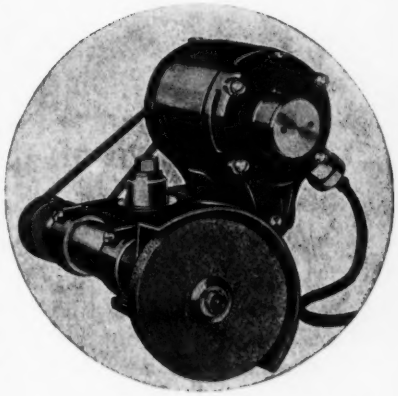
The DUMORE lubricating system has been pronounced the finest ever developed for oiling ball bearings at high spindle speeds.

That *is* a point! Every machinist, every toolmaker, every shop executive who knows anything about grinders realizes what a problem it is to lubricate ball bearings at 35,000 R. P. M. He knows that *too much* oil at high speed is just as bad as *too little*. He wants to be sure.

Point out to him how our system continuously feeds a minimum amount of oil to the bearings while the grinder is in operation—how, in the case of the quill when driven at high speeds, the oil is atomized and the bearings operate in a mist of oil.

The story of Dumore lubrication is a convincing sales argument. Use it to produce profits.

The Dumore Co., 101 16th St., Racine, Wis.



Dumore No. 5 Grinder for production grinding as well as tool room work. Has ½ H. P. universal type motor and speeds ranging from 4,000 to 35,000 R. P. M. . . . There may not be a Dumore distributor in your territory. We suggest you write us.

DUMORE
HIGH SPEED PRECISION
GRINDERS

"TOLEDO"

ANNOUNCES NEW LOWER PRICES ON

—No. 1 and No. 1A 1" to 2" threaders.

"TOLEDO"—The recognized leader of all pipe tools—again steps out and announces these new low net prices on these popular threaders.

Increased demand and greater production makes possible these lower prices at which you can offer these popular models to your trade.

Leaders for over thirty years, "TOLEDO'S" popularity must be and is deserved. No yearly models but constantly improved, "TOLEDOS" are the outstanding pipe tools today.

The "TOLEDO" line is complete and meets every need of your trade.

No. 1 1" TO 2" PLAIN ADJ. THREADER. NEW USER'S NET PRICE **$9.00**

No. 1A 1" TO 2" RATCHET ADJ. THREADER. NEW USER'S NET PRICE **$11.25**

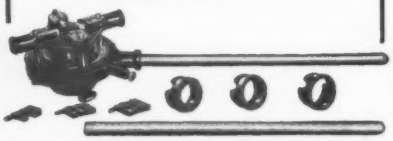
THE TOLEDO PIPE THREADING MACHINE CO. Toledo, Ohio

NEW YORK OFFICE AND DISPLAY 72 LAFAYETTE STREET

SELL YOUR CUSTOMER A

"TOLEDO"

FOR COMPLETE SATISFACTION



Carl Baker, stock clerk for the Great Lakes Supply Company, Chicago, contributes this drawing of "Gutter Ball" Quigley opening the distributors' bowling league in Chicago. The enthusiastic figure with the hooked nose and mustache is the artist's conception of his boss, Carl Channon.

TWO NEW BOOKLETS ANNOUNCED

• A NEW and completely revised edition of "Precautions and Safe Practices" has been prepared by The Linde Air Products Company.

While the subject of safety is well standardized, and therefore subject to but little change, the advances in the oxy-acetylene process itself, and its widening use during recent years, have shown where additional emphasis in safety precautions is needed, and have necessitated some new suggestions. All of this has been incorporated in the new edition of this booklet, to fill the demand for a more up-to-date handbook on this subject.

Another addition to oxy-acetylene literature is "Recommended Practices for Gas Cutting of Structural Steel," also just announced by The Linde Air Products Company.

This booklet sets up qualification tests for the predetermination of good workmanship from the standpoint of dimensional accuracy and smoothness of cuts. These tests, of course, apply only to hand blowpipes, and are for the present restricted to the plain low carbon steels.

BULLETIN ON SHEET IRON PUBLISHED

• THE fifth edition of "Sheet Iron—A Primer" has just been published by the Republic

Clements Cadillac BLOWER

A combination Cleaning Tool with a 3-fold value

It's a Blower, Sprayer and Suction Cleaner

The Clements Cadillac Blower is a profitable specialty for your 1935 sales campaign. Cleans motors, machines, bins, shelves, pipes, automobiles . . . sprays light liquids. Sells easily on demonstration.

10 day Free Trial.

Distributors wanted. Ask for Catalog.

CLEMENTS MFG. CO.
6650 Narragansett Ave., CHICAGO, ILL.

1905 **Strand** 1934

FLEXIBLE SHAFTS and MACHINES

⅛ to 2 H. P.

The Most Successful Salesmen Are Those Who Promote the Sale of Quality Equipment

When You Sell the *STRAND* You Have a Steady Customer

TYPE M66

We Build Sixty Types and Sizes ⅛ to 2 H. P. Both Vertical and Horizontal and Many Attachments Covering a Multitude of Operations

N. A. STRAND & CO.
Manufacturers
5001 No. Lincoln St. Chicago

Steel Corporation. The book contains 64 pages and is profusely illustrated. In simple, non-technical language it tells the step-by-step story of modern manufacture of sheet iron.

BEG YOUR PARDON

• IN the November issue, a picture of two gentlemen was captioned, "A couple of full backs of the hack saw industry . . . J. H. Flovell and C. B. Cecil, both with the W. O. Barnes Company, Incorporated." Mr. Flavell's name was misspelled, an "o" being substituted for an "a."

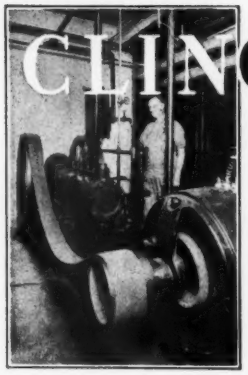
WELDING CLINIC FEATURES BUFORD BROTHERS EXHIBIT

(Continued from page 15)

visitor could see that the aim of each manufacturer was to show the construction of their products and the uses of each. Factory salesmen were present explaining in detail anything the visitors wished to know. Incidentally, at such exhibitions as these, the distributors' salesmen learn much concerning various lines and pick up some good sales points by listening to the explanations of the factory salesmen.

The welding clinic located in the rear of the building, proved to be quite an attraction. Visitors were instructed on the uses of welding equipment by factory experts, then were requested to use any part of the equipment they desired. Here, as at all other exhibits, instruction and facts were given and not high pressure sales talk. (Turn to next page)

The welding crew from the Linde Air Products Company. Left to right: W. H. James, service operator; A. J. Belden, service supervisor; R. L. Allen, salesman; and R. Q. McEniry, salesman.



CLING-SURFACE
and SLACK BELTS
are taking up the SLACK in many Distributors' Belt Preservative Sales and Profits

More and more distributors are voluntarily selling Cling-Surface exclusively because they know it delivers the goods to their customers. Furthermore they have found that wherever Cling-Surface is used, repeat orders come automatically and in increasing volume. Not an in-and-out item packed with headaches but a proven product that has real consumer acceptance in a host of worth-while plants thruout the world.

For complete information write

CLING-SURFACE CO.
1017 Niagara St. Buffalo, N. Y.

DISTRIBUTORS SERVE INDUSTRY ECONOMICALLY

Check up on the Features of this New Hook Handle Portable

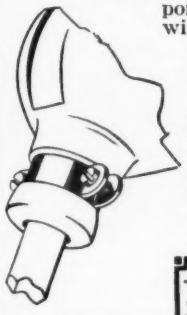
Here's a guard that is really different. It's real practical—it's new—it has features you can talk about — that will help you get orders. It has greater utility, safety, convenience and time saving value. The new open flat hook and socket housing are big steps ahead in guard construction.

No. 600 Series

Tell Your Customers About the Hook Feature

The flat, wide open hook feature makes this new guard at least twice as convenient as any other portable guard ever made. Hook it anywhere —on bench top, over a pipe, between joints, and this hook tends to hold it steady. There are scores of places where this larger flat hook will support the guard, where the old style wire hook would not fit.

No. 600M Series



New Strain Relief — Another Feature

Stronger and easier to wire, this screw clamp fastener securely grips the cord at the base of the handle, relieving all strain from the socket connections.

Twelve different Hook Handle Models to take lamps from 25 to 100 Watts

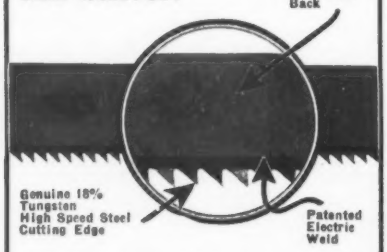
Get a supply of our new Hook Handle Portable Guard folders and leave them with your customers.

Levolier

McGILL MANUFACTURING CO.
Electrical Specialties of Quality
ESTABLISHED 1904
VALPARAISO • INDIANA

Box No. 669

Only **MARVEL BLADES**
can deliver:

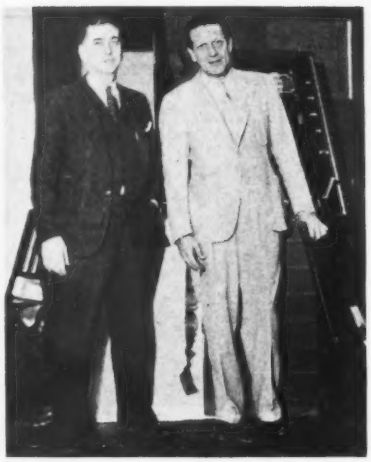


ONLY MARVEL Hack Saw Blades have the complete sales story—combine the best features of all other types, still have the weaknesses of none. Only MARVEL BLADES can give the cutting qualities of Genuine 18% Tungsten High Speed Steel and be POSITIVELY UNBREAKABLE too. From a performance and selling viewpoint there can be only one quality line, MARVEL—for they cost no more than ordinary high speed blades.

Write for the complete story.

HIGH-SPEED-EDGE MARVEL ARMSTRONG-BLUM MFG. CO. CHICAGO U.S.A.

Armstrong-Blum Mfg. Co.
"The Hack Saw People"
353 N. Francisco Ave.,
CHICAGO, U. S. A.



The close contact established between manufacturers' representatives and distributors' salesmen is a valuable attribute of shows of this character. Here M. T. Gossett, manager, engineering department, Buford Brothers, is pictured with I. M. Valentine, Johnson Bronze Company.

When the four day session was over, data compiled from the registration cards shows some interesting information. There were 1179 cards filled out. More than 80 per cent were directly connected with some phase of the industrial business, presidents, managers, purchasing agents, superintendents, and so on down the line to shipping clerks. Some had come from points as far as 300 miles from Nashville.

The exhibit was beneficial not only to Buford Brothers and the manufacturers, but helpful to every one of the many visitors,

John Norton, center, discusses the show with J. C. Simmons, Rust-O-Leum Corporation, left, and P. J. Edwards, Clipper Belt Lacer Company.

PORTABLE ELECTRIC DRILL

A high grade intermittent service, light duty, portable electric drill that finds a ready market in plants, repair shops, etc.—¼ inch size, powerful Signal Universal Motor for D.C. or A.C. 110 volts—weighs 6 pounds—has "make-and-break" switch—furnished with 8 feet of heavy duty rubber covered cord with rubber plug and key. Send for details and discounts.

SIGNAL ELECTRIC MFG. CO.
Menominee, Michigan

OFFICES IN PRINCIPAL CITIES

SIGNAL MANUFACTURERS OF ELECTRICAL PRODUCTS

Look for Every
RED SHIELD
High Speed Drill
is 53 Years' Experience
in Manufacturing
TWIST DRILLS
The RED SHIELD on Every Shank Is a Guarantee of Performance
THE LAVERAGE TOOL CO.

America's Largest Manufacturer of canvas products offers you three well known Fabric Belts—Make them a part of your 1935 Sales Campaign

GENUINE
• HETTRICK
STITCHED CANVAS BELTING
The Standard for Over 40 Years

• MALABAR
For Heavy Duty Elevating and Conveying

• HETMACO
A New Belt for Oily Conditions

Plan now to increase your belting sales in 1935. Hettrick belts will do it.

HETTRICK MFG. CO.
Summit and Magnolia Sts.
TOLEDO, OHIO

SHERMAN
BARREL FAUCETS

Sherman Barrel Faucets have solid brass handles and close with pressure. They are theft proof, easily operated, long wearing, will not leak, and give full flow even when the barrel is nearly empty. Made in ¾ inch size only. Fig. 106 Self Closing Lock Lever illustrated herewith. Also manufacturers of ground key type. Write for complete details.

SHERMAN
RADIATOR FILLER FAUCETS

Sherman Radiator Filler Faucets are convenient, strong, durable and economical. They have long spouts, fit any radiator opening and protect the hands. Smooth stream—easily controlled from full stream to trickle—no splash or drip. Made of high grade, tough bronze with accurate, strong mechanism. ¾ Hose Thread. Packed in cartons—weight approximately 1 lb. each.

DISTRIBUTORS—Make these two fast-selling items pay you profits. Ask for complete information and samples. Quick service guaranteed on your orders.

H. B. SHERMAN MFG. CO.
BATTLE CREEK, MICH.

NO SPUTTER—
NO FUMES—NO LEAKAGE

A FOOL-PROOF SOLDER

Here's the king of acid core solders—Berry's "Leek-Pruf." It can't go wrong, for "Leek-Pruf" is fool-proof—the only acid solder with a paste core. Absolutely no liquid. This means *no deterioration from leakage.* If you aren't selling Berry's begin now and watch the repeat customers come back for more. BERRY SOLDER CO., Inc., 19 Rector Street, New York. Industrial and packaged solder.

BERRY'S SOLDER
"leek-pruf" hard acid core

for they learned how products were made and how these products could be used advantageously in their own plants.

CURRENT CODE DEVELOPMENTS

(Continued from page 24)

News Plaza, Chicago. Norman Durrie, executive secretary, and Elizabeth Williams are full-time employes.

WHOLESALERS HELD UNDER LUMBER CODE

● THE NATIONAL INDUSTRIAL RECOVERY BOARD has ruled that wholesalers or distributors under the code for the wholesaling or distributing trade are also subject to the minimum mark-up and trade practice provisions of the code for the retail lumber, lumber products, building materials and building specialties trade when they sell composition roofing and shingles, asbestos roofing and shingles, insulation materials and building materials in less than carload lots.

The ruling exempts the wholesalers or distributors selling these products in less than carload lots from the other provisions of the code for the retail lumber, lumber products, building materials and building specialties trade, but specifies that they are under Article VIII of the code, which contains the mark-up and trade practice provisions.

The codes tended to overlap in their relations to these wholesalers and distributors. The ruling was issued to correct the situation.

The retail lumber code requires that retail prices include specified minimum mark-ups to insure recovery of the true costs of the articles sold, plus the cost of operations. The wholesaling or distributing trade code does not have a minium mark-up provision. It was found that dealers purchasing the materials specified in the ruling from firms under the wholesaling or distributing code could undersell retailers under the retail lumber code. The ruling is in-

ITS SALES *Are on the Upswing!*

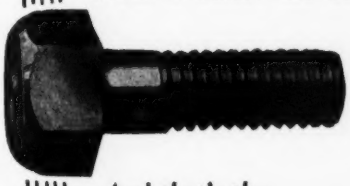
Safety equipment purchases that lagged in '32 and '33 are being made now! And the Dayton Safety Ladder is getting its share.
Made of durable airplane spruce in sizes 3 to 16 feet, it stands without wabbling or tipping, allowing workmen to use both hands.
A few desirable distributor territories are still open. We back you with full co-operation. Write Dept. MS-12 for details.

THE DAYTON SAFETY LADDER CO.
121-123 West 3rd St., Cincinnati

DAYTON Safety Ladder
(Patented)

Plant Buyers Prefer One Source of Supply

at least when it comes to purchases of Screws and Bolts



And that's the advantage of Selling

OTTEMILLER
MILLED SCREW MACHINE PRODUCTS

Our set and cap screws, coupling bolts and milled studs are complete for practically all purposes—and are so accurate, uniform and economical that they have become standard with many buyers.

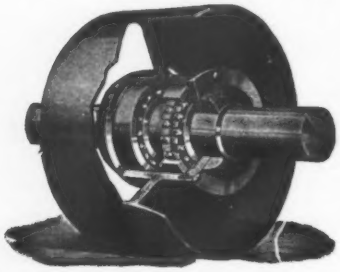
For good volume and steady profits sell Ottemiller Products.

Write for complete information.

The WM. H. OTTEMILLER CO.
YORK, PA.

- - We also manufacture Dardelet Thread Screws - -

DAGGETT
BALL BEARING
LOOSE PULLEYS



SAVE
TIME in daily oiling
COST of lubricant and replacement
LOSS in power from friction

There is no question but what you will experience a quick consumer interest in their superior qualities. And that means sales because pulley replacements are badly needed in industry today.

Ask for our profitable distributor terms and for information about the engineering assistance we will give you.

CHICAGO PULLEY & SHAFTING CO.
19 N. Desplaines St. CHICAGO, ILL.

7 REASONS WHY
• RIDGID •
POSTER THREADERS
Sell Readily

1. Direct drive over chasers —no wobble, greater precision.
2. Full-floating posts carry no load, simply taper threads. Not riveted, easily replaced.
3. Chaser locks enclosed—can't be damaged.
4. Ratchet lever snaps into exact position. Sets at "Locked" for solid die.
5. Workholder sets to size mechanically—put on pipe, tighten with one screw.
6. Alloy tool steel chasers interchangeable — fit any poster type threader.
7. Tool weighs only 12 lbs. Rugged strength, rust-proof, no sharp edges.

No. 1R, 1" to 2", 4 sets of chasers, 1 or 2 handles. Now 11 threaders in the complete line, meeting all 2" needs.

Write for folder.

THE RIDGE TOOL CO., Elyria, O., U. S. A.

RIDGID
PIPE TOOLS

tended to place both groups on an equal footing.

COMPLAINTS COMMITTEE APPOINTED

● THE following trade practice complaints committee for the Anti-Friction Bearing Industry was approved by the National Recovery Administration on November 5: W. E. Umstattd, Timken Roller Bearing Company; F. G. Hughes, New Departure Manufacturing Company; A. C. Davis, Marlin-Rockwell Corporation; E. R. Wakefield, secretary of the Code Authority; G. A. Strom, Strom Steel Ball Company; H. A. Shatz, Federal Bearing Company; and F. C. Burkholder, Ahlberg Bearing Company.

GRINDING WHEEL CODE AUTHORITY NAMED

● THE NATIONAL RECOVERY ADMINISTRATION, on November 5, announced recognition of the following membership of the code authority for the Grinding Wheel Industry: W. LaCoste Neilson, Norton Company, Worcester, Massachusetts; J. I. Baker, Safety Grinding Wheel and Machine Company, Springfield, Ohio; A. P. De Sanno, Jr., A. P. De Sanno and Company, Philadelphia; F. R. Henry, Simonds Worden White Company, Dayton, Ohio; F. J. Tone, Carborundum Company, Niagara Falls, New York; L. L. Byers, Sterling Grinding Wheel Company, Tiffin, Ohio, and George S. Emerson, Hampden Grinding Wheel Company, Springfield, Massachusetts.

TRADE PRACTICE COMPLAINTS PLAN APPROVED

● THE NATIONAL RECOVERY ADMINISTRATION has approved the organization and procedure plans for handling trade practice complaints in the machine tool and equipment distributing trade.

The members of the Complaint Board follow: George H. Cherrington, Brown and Zortman Machinery Company, Pittsburgh; Marshall Prentiss, Henry Prentiss and Company, In-

DISTRIBUTORS:

We can give you quick service on the following:

BOLTS
Connecting Rod
Dardalet Thread

NUTS
Semi-Finished Hex and Jam
Coarse and Fine Thread
Castle Nuts

SCREWS, Cap (Made from .30—.37 normalized steel)
Hexagon Head
Coarse and Fine Thread
Fillister Head
Flat Head

SCREWS, Lag

SCREWS, Machine
Brass and Steel
Flat, Round, Oval and Fillister Head

SCREWS, Set
Headless—Square Head

SCREWS, Wood
Brass and Steel

SPECIAL WORK

Our packing and shipping methods insure safety, as well as promptness.

We invite you to try us.

ROCKFORD SCREW PRODUCTS CO.
2501 Ninth St. ROCKFORD, ILL.

To Distributor Executives:

When you have gone through this issue of MILL SUPPLIES, ask yourself if it would not be worth four cents a man to you to be assured that every one of your salesmen obtained the full benefit of the many sales-building helps it contains.

At a cost of only four cents a month, you can (as hundreds of other distributors are now doing) send MILL SUPPLIES to each one of your salesmen's homes. There, in one or two evenings a month, they can absorb enough valuable information to repay you hundreds of times over for the small expense you have incurred in sending the magazine to them.

Send us today the names and addresses of the men who should receive the Magazine. A bill will be sent you later.

MILL SUPPLIES
520 N. Michigan Ave., Chicago, Ill.

WHEN ground and rails are covered with snow and ice—when cold stormy weather makes men more careless than usual—when safety is especially desired—then the ATLAS with its carefully selected materials—designed to withstand abuse—is the car mover to sell.

If you are not handling this safe mover, get in touch with us now.

APPLETON-ATLAS CAR MOVER CORPORATION
2947 No. 30th Street
MILWAUKEE, WIS.
(Formerly located at APPLETON, WIS.)

ATLAS car MOVER POWER!

THE SOURCE OF SUPPLY
for safety equipment

More and more Industrial Distributors and Jobbers are depending upon the Chicago Eye Shield Company as THE BEST SOURCE OF SUPPLY for high quality, well advertised, profit making industrial safety equipment.

CESCO RESPIRATORS

One widely sold item is Cesco's new line of respirators. It's a standard. 5 kinds of filters—one of these 5 types will handle any job requiring a dust mask or respirator. Workmen like the soft, pliant Cesco Respirator because of its great wearing comfort and proved efficiency.

OTHER CESCO SAFETY EQUIPMENT

Chipping and Welding Goggles—Goggles for every industrial use. Welding Helmets, Masks, Cover Glass — Sand Blast Masks and other respiratory safety devices —A most complete line of industrial head, eye and lung safety equipment—and at one reliable source.

INDUSTRIAL DISTRIBUTORS AND JOBBERS

Write today for complete catalog, discounts and Cesco's plan of jobber cooperation.

CHICAGO EYE SHIELD COMPANY
2329 Warren Blvd. CHICAGO, ILL.

corporated, New York; Stanley Match, Motch and Merryweather Machinery Company, Cleveland; J. Roy Porter, Marshall and Huschart Machinery Company, Chicago; W. S. Dyson, Hallidie Machinery Company, Seattle; J. W. Wright, Colcord-Wright Machinery and Supply Company, St. Louis; and C. E. Moore, Herberts-Moore Machinery Company, San Francisco.

In addition, committees have been named to handle complaints in the following trading areas: Pittsburgh, Seattle, New York City, Boston, St. Louis, St. Paul, Buffalo, Rochester and Syracuse, Cleveland, Chicago, Detroit, San Francisco, Baltimore, Cincinnati, Denver, Indianapolis, Los Angeles, Philadelphia and Houston.

CHAIN HOIST COMMITTEE APPROVED

● MEMBERSHIP of the trade practice complaints committee for the Hand Chain Hoist Manufacturing Industry was approved by the National Recovery Administration on November 10, as follows: D. S. Brisbin, Chisholm-Moore Hoist Corporation; A. M. Harrington, The Harrington Company; L. D. Cull, David Round and Son; C. S. Neumann, Union Manufacturing Company; J. C. Morgan, Yale and Towne Manufacturing Company; and A. P. Van Schaick, Wright Manufacturing Division, American Chain Company.

PACKING CODE AUTHORITY NAMED

● THE NATIONAL RECOVERY ADMINISTRATION has recognized the following membership of the Code Authority for the Mechanical Packing Industry: George L. Abbot, The Garlock Packing Company; Frank J. Wakem, Packing and Power Specialties Division, Johns-Manville Corporation; H. S. Fitz Gibbon, H. S. Fitz Gibbon and Company, Incorporated; A. W. Swartz, Linear Packing and Rubber Company, Incorporated; and B. Franklin Connor, Colt's Patent Fire Arms Manufacturing Company.

Get Our LOW PRICE on this 2", 10,000 Gal. Size

JAEGER "SURE PRIME" PUMPS SELL FASTER . .

2"—3"—4"—6"—8" SIZES

Beat competition, make money with America's fastest selling line of compact, portable, sure priming centrifugals. Amazingly low prices. Write us.

THE JAEGER MACHINE CO.
501 Dublin Avenue, Columbus, Ohio

VEELOS

MERCHANDISING PLANS FOR 1935

are now being made.

All signs point to an increase in industrial activities. The most significant of these signs is the planning being done by our leading industries to increase their 1935 sales. It's in the air and we suppliers of industrial necessities must be prepared.

Of course, textile belting will play a large part in our industrial activity. It's an all-American product, made in large part from cotton, one of our leading staples, and it is only logical that American cotton should be used to turn the wheels of American industry.

VEELOS is a complete line—genuine balata belting for heavy and all exacting service and canvas stitched for general use.

Every supply house sales manager should study these beltings with a view to 1935 sales. Write for full information.

MANHEIM MANUFACTURING & BELTING COMPANY
MANHEIM, PA.

"U-W"
QUALITY
PRODUCTS

DROP FORGED
(WELDLESS)
Hexagonal Pattern
TURNBUCKLES
IN ALL
SIZES AND TYPES
A COMPLETE LINE
FOR EVERY PURPOSE
RUGGEDLY DESIGNED
DEPENDABLE

OTHER PRODUCTS
WIRE ROPE CLIPS
(DROP FORGED & MALLEABLE)
WIRE ROPE THIMBLES
CHAIN and ANCHOR
SHACKLES
WIRE ROPE SOCKETS
EYE BOLTS
HOIST HOOKS
CHAIN CONNECTING LINKS
TACKLE BLOCKS
A COMPLETE LINE FOR
WIRE AND MANILA ROPE
NON-INFLAMMABLE
BRATTICE CLOTH
JUTE AND COTTON
WIRE ROPE
AND
MANILA ROPE
FOR EVERY PURPOSE
CATALOGS AND DISCOUNTS
ON REQUEST
ESTABLISHED 1871
The Upson-Walton Co
MAIN OFFICE & FACTORY
1168 W. 11th ST.
CLEVELAND, OHIO
Branch Offices and Warehouses:
NEW YORK — BUFFALO — PITTSBURGH
CHICAGO

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MILL SUPPLIES

THE MAGAZINE of INDUSTRIAL DISTRIBUTION

Directory Edition

YOUR BUYING GUIDE FOR 1935

A COMPLETELY revised directory of mill, mine, power and general industrial supplies, equipment and tools, and manufacturers thereof, with trade names, built especially for industrial distributors and their salesmen.

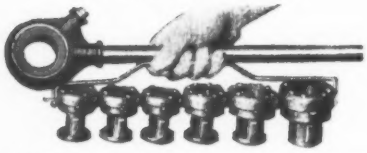
UMI

The BORDEN Company

BEAVER

295 Dana Ave.
Warren,
Ohio

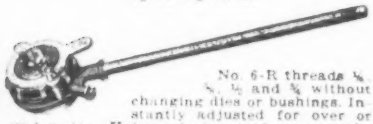
No. 3 Beaver Ratchet—⅛ to 1-Inch Bolt Dies—¼ to 1-Inch



Ratchet mechanism fully enclosed — no teeth on die head to become mutilated. Oil holes in die heads for easy oiling and chip clearance. Dies square in shape; reversible. No weak sections to break. Handy die-head carrier pin. Right or left.

Net Prices—No. 3 complete, ½ to ¾-inch, $12.75; ⅛ to 1-inch, $13.50; ½ to 1-inch, $15.75; ⅛ to 1-inch, $18.00.

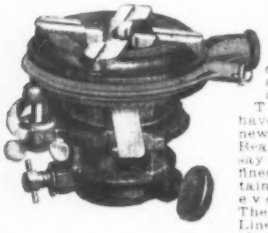
No. 6-R—Beaverette Ratchet ¼ to ¾-Inch



No. 6-R threads ¼, ⅜, ½ and ¾ without changing dies or bushings. Instantly adjusted for over or under size. Universal pipe guide centers the pipe accurately. Close nipples can be cut. New locking device—on top. Two sets of dies, required because of two different thread pitches, are always in the tool. For iron, steel, brass or copper pipe. Right or left. Dies for ⅛-inch extra, if desired.

Net Prices—No. 6-R Beaverette Ratchet complete ¼ to ¾-inch, $13.50; No. 6 Beaverette Plain, complete ¼ to ¾-inch, $12.00. Extra Dies, per set (⅛), (¼ x ⅜) or (½ x ¾) $2.25.

No. 12-R Beaver 1 to 2-In.

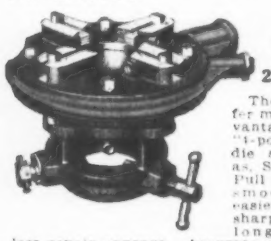


Fully self-contained and adjustable.

Those who have used the new No. 12-R Beaver Ratchet say it is "the finest self-contained die stock ever made." The Straight-Line Pull (ratchet on the die head) insures smooth and easy cutting, good threads and minimum wear on dies and tool. The self contained rear-end centers the pipe accurately (no bushings). Cuts uniform drip threads and close nipples. Exceptionally rugged, yet weighs only 16 lbs. Made of certified malleable iron to withstand hard use. R. H. only.

Net Prices—No. 12 Plain, complete, $12.00; No. 12-R One-handle Ratchet, complete, $15.00; No. 12-RX Two-handle Ratchet, complete, $16.00; Extra Dies, per set (threads four sizes), $1.50.

No. 8-R 1 to 2-Inch No. 38-R 2½ to 3-In.



These tools offer many new advantages in the "4-post" type of die stock — such as, Straight Line Pull that insures smoother and easier cutting; sharper threads; longer die life; less repair expense. Accurate and self-contained Rear End that cuts uniform drip threads and close nipples; positive die retaining devices—dies cannot become lost; interchangeable die segments. The lightest and strongest 1 to 2-inch ratchet tool made.

Net Prices—No. 8 Plain, complete, $9.60; No. 8-R One-handle Ratchet, complete $12.00; No. 8-RX Two-handle Ratchet, complete, $13.00; Extra Dies, any size, 1, 1⅛, 1½ or 2-inch per set, $0.75; Special Brass Pipe Dies, per set, $0.75. Dies for Cast Iron Pipe, per set, $1.25.

Beaver Dies fit all standard "4-post" tools. No. 38-R, 2½ to 3-inch, $27.00; Extra Dies, per set, $2.40.

Beaver Square-Built Pipe Cutters —No. 102—⅛ to 2-Inch; No. 204 —2½ to 4-Inch

Guaranteed to Track

The No. 102 Beaver can be used with either 1 or 3 wheels, and is guaranteed to "track" all of the time. Certified malleable iron insures against breakage. Patents pending.

Net Prices—No. 102 Beaver, $3.00; No. 204, $10.00.

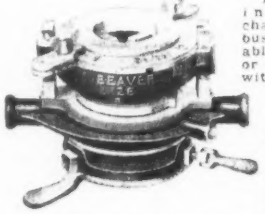
(Wheels and Rollers are standard and interchangeable.)

Beaver Square-End Sawing Vise No. 2—⅛ to 2-In.; No. 4—1½ to 4-In.

In making up threadless joints it is necessary that the pipe or tubing be cut with a square end—and this is easily accomplished with the Beaver Square-end Sawing Vise. Both tools are contained — simple to use with a standard hack saw. Will not mar or crush tubing. Made with renewable steel inserts.

Net Prices—No. 2 Sawing Vise, ⅛ to 2-inch, $5.00; No. 4 Sawing Vise, 1½ to 4-inch, $15.00.

Heavy-Duty Self-Contained Beavers 1 to 2"



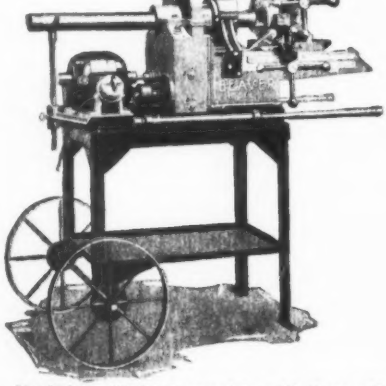
Thread 1 to 2-inch without changing dies or bushings. Adjustable to thread over or under standard without shortening the length of thread. Will cut crooked (drip) threads — also short nipples — even on 2-inch. New models have many improved features. Right or left.

Net Prices—No. 26 Beaver Ratchet, $19.26; No. 25 Beaver Plain, $16.50.

"Model-A" Beaver Pipe Machine—½ to 2"

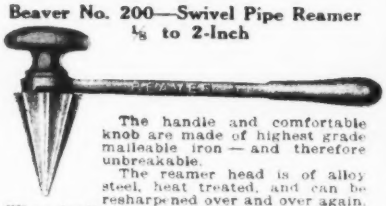
(Capacity up to 12-inch with Geared Tools.)

Outstanding Advantages — Rack and Pinion Feed; Tilting Work Head; Swinging Cone-Reamer; Accessible Oil Pump; Outboard Pipe Support; Double-Jet Oil Flow; Aluminum Housings to minimize weight; Interchangeable Motor Unit; Easily Portable; Universal Motor (reversible) operates on any 110-volt a. c. or d. c. line, 25 to 60 cycle.



Net Prices—Model A, complete, with three self-contained Die-Heads, threading ½ to 2-inch, and 5 gals. Beaver Threading Oil, $315.00. Portable Stand, extra, $17.50.

Beaver No. 200—Swivel Pipe Reamer ⅛ to 2-Inch



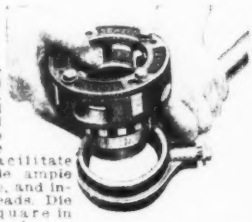
The handle and comfortable knob are made of highest grade malleable iron — and therefore unbreakable.

The reamer head is of alloy steel, heat treated, and can be resharpened over and over again. When finally worn out, the reamer head can be replaced at moderate cost.

The simple swivel action makes this tool preferable to the old style ratchet reamer. Will stand almost unlimited abuse without injury. Reams ⅛ to 2-inch pipe.

Beaver No. 200 Swivel Reamer, ⅛ to 2-inch. Net price, $4.00.

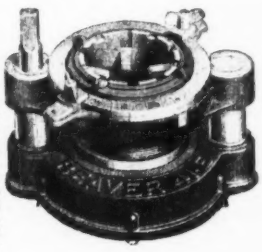
No. 17 Beaver Ratchet ⅛ to 2-In.



Rugged, and fool-proof. Four large oil holes (bridged across top to prevent die spreading) facilitate oiling, provide ample chip clearance, and insure good threads. Die segments square in shape — no weak sections to break off. Buy any range of sizes.

Net Prices—No. 17 complete, 1¼ to 2-inch, $13.20; ½ to 2-inch, $22.20; ⅛ to 2-inch, $27.80.

No. 41-E Adjustable Threader 2½ to 4-Inch



Simple, rugged, semi-self-contained and adjustable. One set of dies threads all four sizes. Enclosed gears, packed with graphite grease, prevent damage to gear and pinion and save costly repair bills. Gear case of nickel semi-steel—which means greater rigidity, smoother and easier cutting, better threads, and less wear on dies and tool.

Net Prices—No. 41-E, 2½ to 4-inch, $50.00; No. 61, 2½ to 6-inch, $115.00; No. 61-E, 4 to 6-inch, $94.68; No. 80, 4½ to 8-inch, $150.00; No. 90, 9 to 12-inch, $250.00.

Beaver Square-End Pipe Cutters

No. 1—¼ to 1-Inch; No. 5—¼ to 2-Inch. Cut pipe square without burrs. Knives feed automatically.

Net Prices—No. 1, $13.50; No. 5, $15.00.

No. 104 Square-End Cutter 2½ to 4-Inch

Self-contained. Gears encased and packed in grease. Unbreakable knives feed automatically. Universal two-jaw chuck centers and clamps tool on the pipe — no bushings. A "one-piece" tool.

Net Prices—No. 104, 2½ to 4-inch, $60.00; No. 106, 2½ to 6-inch, $80.00; No. 108, 4½ to 8-inch, $144.00; No. 112, 9 to 12-inch, $194.00; No. 10, 2½ to 4-inch (Ratchet—hand use only), $48.00. Operating ratchet for Nos. 104, 106, 108, 112, extra, $6.00.

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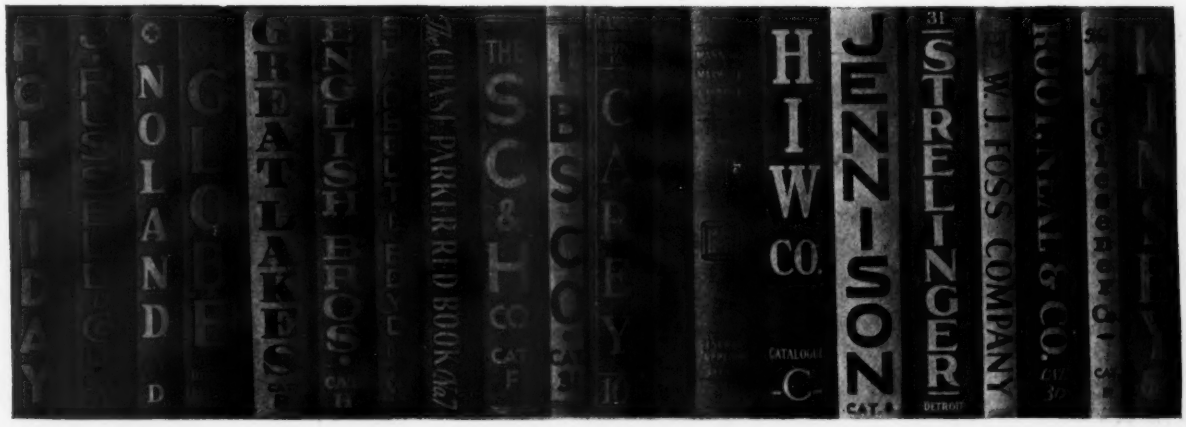

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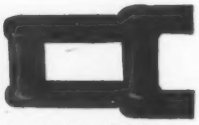

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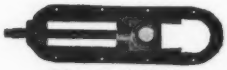

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Drop Hangers—all types.

Silverlink Roller Chain Drives. Drives up to 225 H.P. and over, in speed ratios of 1 to 1 up to 8 to 1, carried in stock by distributors.

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The Magazine of Industrial Distribution

JAMES A. CHANNON, Managing Editor
ALBERT E. PAXTON, Editor
HENRY W. YOUNG, Pacific Coast Representative

VOLUME 24 NUMBER 13

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Mid-December, 1934

EDWARD J. McOSKER, Editor
A. M. McHONEY, Assistant Editor

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In Three Divisions

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THE Directory Edition of MILL SUPPLIES is divided into an alphabetical list of manufacturers, with their addresses; the trade name section, containing trade names arranged alphabetically, with the names of the companies employing them and the products to which they apply, and the classified list, in which products are arranged alphabetically and names of manufacturers thereof are grouped under them.

If you want to find the address of a manufacturer, turn to the "Names and Addresses" section.

If you want to know the names of manufacturers of a given item, turn to the "Classified List."

If you want to know what company employs a certain trade name, turn to the "Trade Name Index." We do not make it a practice to carry a trade name in the "Trade Name Index" where the trade name, or the first part of it, is the same as the company's name. If you cannot find a trade name in the "Trade Name Index," look for the company name under the product heading in the "Classified List."

In case you desire to determine whether or not a given manufacturer carries advertising on his line without referring to the directory section, turn immediately to the "Index to Advertisers."

More complete instructions on how to use each division of the directory section will be found on the first page thereof.

Keep this book where it is easily accessible. It should be your right hand man in providing buying data and other information regarding manufacturers and their lines.

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MILL SUPPLIES

With Which Is Consolidated INDUSTRIAL DISTRIBUTOR AND SALESMAN, and Combined With Mill Supply Salesman, founded by Ernest H. Smith

DIRECTORY EDITION
MID-DECEMBER, 1934

VOLUME 24 - NUMBER 13

A 1935 BUYER'S GUIDE

Built Exclusively For You

MILL SUPPLIES' twenty-seventh buyer's guide, compiled and published exclusively for the industrial distributor and his organization, is presented in the following pages.

Under various titles and in different forms, these directories have been brought out annually as an unbroken service to the field served by MILL SUPPLIES—the magazine of industrial distribution. Each change that has been made has been with the best interests of distributors in mind.

This year the buyer's guide appears in a new form—as a thirteenth issue of MILL SUPPLIES. The most radical change from the plan employed in the MILL SUPPLIES CATALOG & DIRECTORY, its immediate predecessor, lies in the fact that manufacturers' advertising is interspersed with directory listings, instead of being grouped in one section of the book. This, we believe, will make the directory edition much easier to use.

The directory listings have been completely revised so that you will have up-to-date buying information for the year 1935. More than 200 manufacturers have presented in the Directory Edition helpful buying information on their lines which is not obtainable in ordinary listings.

Items listed in the Directory Edition are confined to those sold by distributors, or on which they receive inquiries. Consequently, it is compact and handy. If you are an executive or buyer, keep it at your elbow, ready for quick reference. If you are a salesman, carry it with you in your portfolio or car. It may mean orders for you many times because it will enable you to give your customers quick information on lines your house does not carry in stock.

Finally, if you cannot find information you are seeking in the Directory Edition, we urge you to write us, and we will give you every possible assistance in securing the data you require.

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BOSTON WOVEN HOSE
TRADE MARK
AND RUBBER COMPANY

BOSTON WOVEN HOSE
& RUBBER COMPANY

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- Gleaner
- Leader
- Royal

AIR
- Alpha
- Bay State
- Bull Dog
- Non-Kink
- Tiger
- Vim

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AUTOMOBILE HEATER

AUTOMOBILE RADIATOR

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BREWERS'

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COUNTRY CLUB AND GOLF CLUB

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- Perfection Sand Suction

FIRE HOSE—COTTON RUBBER LINED
- Bull Dog Underwriters'
- Leader
- O. K. Underwriters'
- Pointer

FIRE HOSE—UNLINED LINEN
- Black Line
- Labello

FLORIST

FORESTRY

GARAGE AIR
- Bull Dog
- Non-Kink

GARDEN
- Bull Dog
- Bull Dog Cord
- Good Luck
- Leader
- Thorobred
- Vigilant
- Vixen

GASOLINE

HARD RUBBER SUCTION

HIGHWAY AND INDUSTRIAL
- Bull Dog Acid
- Bull Dog Brewers'
- Bull Dog Creamery
- Bull Dog Highway
- Bull Dog Jetting
- Bull Dog Paper Mill
- Bull Dog Sand Blast
- Bull Dog Vacuum
- Tiger Creamery

OIL SUCTION AND DISCHARGE

OIL WELL
- Bull Dog Rotary
- Driller King Rotary

RADIATOR

SAND BLAST

SOLVENT

SPRAY
- Bull Dog
- Non-Kink

STEAM
- Bull Dog
- Bull Dog Pile Driver
- Leader
- Paramount
- Tiger

SUCTION
- Bay State
- Commercial
- Contractors'
- Dandy
- Leader

TANK CAR AND TANK WAGON

VACUUM

WATER
- Bull Dog
- Tiger
- Vim

WELDING
- Bull Dog
- Non-Kink

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W. H.

RUBBER GOODS

RUBBER BELTING

BUCKET ELEVATOR
- Service
- Super-Service
- Utah

CONVEYOR
- Aurochs
- Bull Dog
- Canners
- Iron Clad
- Silver King

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GRAIN ELEVATOR BELTING
- Damascus
- Granger

HOG BEATER BELTS AND PADDLES

OIL FIELD BELTING

TRANSMISSION BELTING
- Bison
- Bull Dog Gold Edge
- Cyclops
- Perfection Gold Edge
- Tiger
- Warrior

MISCELLANEOUS B.W.H. PRODUCTS

APRONS—ACID, AUTO WASH AND BATTERY

AUTOMOBILE FLOOR MATS

AUTOMOBILE TOPPING

AUTOMOBILE WASH APRONS

BRASS COUPLINGS OF ALL KINDS

BRASS HOSE NOZZLES
- Boston Spray
- Eclipse Spray

CHUTE LINING

DOOR MATS
- Bull Dog
- Ever-Kleen
- Tiger

ELECTRICAL FRICTION TAPE
- A. S. T. M.
- Bull Dog
- Leader
- Magnet
- Vim

FRICTION TAPE, BULL DOG

HOSE FITTINGS AND CONNECTIONS

HOSE ACCESSORIES AND FITTINGS
- Brass Couplings
- Brass Expansion Ring Couplings
- Brass Steam Hose Couplings
- Brass Suction Hose Couplings
- Brass Water Hose Couplings
- Heavy Duty Oil Field Couplings
- Spanners

LINEN HOSE

MATTING—RUBBER
- Bull Dog
- Dandy
- Leader
- Paramount
- Pyramid

MATTING—RUNNING BOARD

NIPPLES—OIL SUCTION AND DISCHARGE

NOZZLES, SPRAY

OIL FIELD COUPLINGS
- Heavy Duty "Boss" Tri-Duplex

PACKING, RED SHEET AND C. I.

PULLEY LAGGING

RUBBER TAPE
- Alexall
- A. S. T. M.
- Sterling

RUBBERIZED FABRICS
- Everdry Hospital Sheets
- Ponchos
- Rubber Blankets

SHEET PACKING

SPANNERS

SPLICING COMPOUND

STAIR TREADS
- Bull Dog Super-Tread
- Tiger

STUFFING BOX RINGS

TUBINGS
- All Rubber
- Cloth Insertion
- Milking Machine

UNDERWRITERS'
- Hose Pipes

OUR CATALOG IS FILED IN SWEET'S

W.H.
EANS
ILT
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NOR"

BOSTON WOVEN HOSE & RUBBER COMPANY

Two pictures, one story. The story covers slightly more than fifty years. It deals with the consistent effort of a manufacturing organization to serve the needs of industry in mechanical rubber goods. The two pictures sufficiently tell the story, for they show in graphic form the progress and performance which have made it possible. It is our intent to have you find these purposes reflected in every product of this organization and in all your dealings with every member of it.

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CLASSIFIED LIST

of Mill, Mine, Power and General Industrial Supplies, Equipment and Tools, and Manufacturers Thereof.

IN this section products are listed alphabetically and constitute the headings. Under each heading are listed (again alphabetically) the names of manufacturers of the product referred to, together with the cities in which their main offices or general sales offices are established.

In the great majority of cases product headings are arranged alphabetically according to the noun, with the descriptive adjective or adjectives, where there are any, following, for instance, "Bearings, Ball," and "Belting, Rubber." In a comparatively few cases, for reasons considered logical, products are arranged alphabetically according to the descriptive adjective. While we have used cross references extensively, there may be cases where they have been inadvertently omitted. Therefore, we would advise the directory user, if he does not find a certain product listed according to the noun and there is no cross reference, to turn to the place where the item would appear if listed according to the descriptive adjective.

Abrasives

(See "Emery and Other Abrasives," "Paper and Cloth, Sand, Emery, etc." "Belting, Abrasive," "Discs, Abrasive," "Stones, Rubbing and Sharpening," "Wheels, Grinding," "Bricks and Sticks, Abrasive," etc.)

Adapter, Power Pipe Threading

Borden Co., The, Warren, Ohio.

Adzes

Collins Co., The, Collinsville, Conn.
Evansville Tool Works, Inc., Evansville, Ind.
Kelly Axe & Tool Co., Charleston, W. Va.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio. (Miners')
Plumb, Fayette R., Inc., Philadelphia, Pa.

Air Chambers, Hydraulic

Farquhar, A. B., Co., Ltd., York, Pa.

Air Guns

Alemite Corporation, Chicago, Ill.
American Injector Co., Detroit, Mich.
Asch & Co., Inc., New York, N. Y. (For car washing)
Baker-Hansen Mfg. Co., Alameda, Calif.
Binks Manufacturing Co., Chicago, Ill.
Crown Spray Gun Mfg. Co., Los Angeles, Calif.
Dallett Co., The, Philadelphia, Pa.
Economy Machine Products Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
H. B. D. Corp., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Metal Specialties Mfg. Co., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Powell, Wm., Co., The, Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Quincy Compressor Co., Quincy, Ill.
Reading-Fratt & Cady Co., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Simplex Spray Equipment Co., Chicago.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Alarms, Fire

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Federal Electric Co., Inc., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I. (Automatic sprinkler)
Sterling Siren Fire Alarm Co., Inc., The, Rochester, N. Y.

Alarms, High and Low Water

Barco Manufacturing Co., Chicago, Ill.
Brown Instrument Co., The, Philadelphia, Pa.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Hills-McCanna Corp., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Schuette & Koerting, Philadelphia, Pa.
Williams Gauge Co., The N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

Aluminum—Granulated, Ingots and Solder, Etc.

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. (All)
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Menaugh & Co., Chicago, Ill.
Michigan Smelting & Refining Co., Detroit, Mich. (Ingots and solder)
United American Metals Corp., Brooklyn, N. Y. (Solder only)

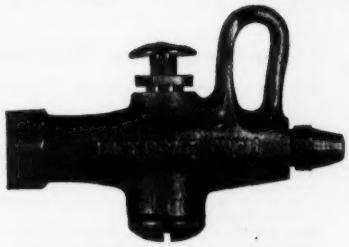
Anchors, Concrete and Masonry

(See "Inserts or Anchors, Concrete and Masonry")

Anchors, Guy Line

Handlan-Buck Mfg. Co., St. Louis, Mo.
Hubbard & Co., Pittsburgh, Pa.
Upson-Walton Co., The, Cleveland, Ohio.

AIR GUNS



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Anchors, Pin and Stone

Conco Engineering Works, Mendota, Ill.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.

Anchors, Pipe, Floor and Wall

Arguto Oilless Bearing Co., Philadelphia, Pa.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.

Anchors, Rail

Arguto Oilless Bearing Co., Philadelphia, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Hubbard & Co., Pittsburgh, Pa.
Marion Malleable Iron Works, Marion, Ind.
Moak Machine & Tool Co., Port Huron, Mich.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.

Anchors, Screw, Expansion

Arguto Oilless Bearing Co., Philadelphia, Pa.
Arro Expansion Bolt Co., Marion, Ohio.
Chicago Expansion Bolt Co., Chicago, Ill.
Hubbard & Co., Pittsburgh, Pa.
Kempton Mfg. Co., New York, N. Y.
National Lead Co., New York, N. Y.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corporation), New York, N. Y.
Rawlplug Co., Inc., New York, N. Y. (Fibre)
U. S. Expansion Bolt Co., New York, N.Y.

Anti-Creepers, Rail

Bethlehem Steel Co., Bethlehem, Pa.
Marion Malleable Iron Works, Marion, Ind.
Midwest Manufacturing Co., Bradford, Pa.

Anvil Tools

(See "Tools, Anvil")

Anvil and Vise Combined

Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hollands Mfg. Co., Erie, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Luther Grinder & Tool Co., Milwaukee, Wis.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corporation), New York, N. Y.
Prentiss Vise Co., New York, N. Y.
Rock Island Mfg. Co., Rock Island, Ill.
Yost Manufacturing Co., Meadville, Pa.

Anvil, Vise and Drill Combined

Champion Blower & Forge Co., Lancaster, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corporation), New York, N. Y.
Rock Island Mfg. Co., Rock Island, Ill.

Anvils, Bench

Columbian Vise & Mfg. Co., The Cleveland, Ohio.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Greenfield, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Millers Falls Co., Greenfield, Mass.
Rock Island Mfg. Co., Rock Island, Ill.

Anvils, Blacksmiths'

Columbus Anvil & Forging Co., The, Columbus, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Rock Island Mfg. Co., Rock Island, Ill.

Anvils, Plowmakers'

Columbus Anvil & Forging Co., The, Columbus, Ohio.

Anvils, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Columbus Anvil & Forging Co., The, Columbus, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Aprons, Asbestos

Chicago Eye Shield Co., Chicago, Ill.
Holcomb Safety Garment Co., Chicago, Ill.
Industrial Gloves Corp., Danville, Ill.
Johns-Manville Sales Corp., New York, N. Y.
Mine Safety Appliances Co., Pittsburgh, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Safety Equipment Service Co., Cleveland, Ohio.
United States Asbestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Aprons, Canvas and Duck

Chicago Eye Shield Co., Chicago, Ill.
Gandy Belting Co., Grand Rapids, Mich.
Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Holcomb Safety Garment Co., Chicago, Ill.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Industrial Gloves Corp., Danville, Ill.
Mine Safety Appliances Co., Pittsburgh, Pa.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Raniville, F., Co., Grand Rapids, Mich.
Robinson, D., & Sons, Detroit, Mich.
Safety Equipment Service Co., Cleveland, Ohio.

Aprons, Leather

Atlantic Manufacturing Co., Wilmington, Del.
California Tanning Co., St. Louis, Mo.
Chicago Eye Shield Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Cook, H. N., Belting Co., San Francisco, Calif.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Industrial Gloves Corp., Danville, Ill.
Ireson, Charles L., Co., Philadelphia, Pa.
Nott, W. S., Co., Minneapolis, Minn.
Philadelphia Belting Co., Philadelphia, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Safety Equipment Service Co., Cleveland, Ohio.
Schieren, Chas. A., Co., New York, N. Y.

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There's a real Market for them Most Places Your Men are Calling

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industrial aprons are scientifically compounded to meet the exacting conditions for which each kind is offered.

WASH APRONS DAIRY APRONS
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It will pay you to learn the important differences in these aprons. Don't just sell "rubber aprons" but sell the correct LONG-LIFE apron for the purpose intended.

Write for Samples and Prices.

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Whiting Leather & Belting Co., Long Island City, N. Y.

Aprons, Rubber, Industrial

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Dallett Co., The, Philadelphia, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Gross Rubber Co., Sharon, Pa.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Mine Safety Appliances Co., Pittsburgh, Pa.
Murdock, M. F., Co., The, Akron, Ohio.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Republic Rubber Co., The, Youngstown, O.
Safety Equipment Service Co., Cleveland, Ohio.

Aprons, Welders'

Chicago Eye Shield Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Gross Rubber Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Ideal Face Shield Co., The, Columbus, O.
Industrial Gloves Corp., Danville, Ill.
Mine Safety Appliances Co., Pittsburgh.
Safety Equipment Service Co., Cleveland, Ohio.

Arbors, Drill Chuck

Champion Blower & Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland, Ohio.
Ettco Tool Co., Inc., Brooklyn, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Jacobs Manufacturing Co., The, Hartford, Conn.
Millers Falls Co., Greenfield, Mass.

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General Asbestos Products, Cements and Other Insulating Materials.

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Air Cell Coverings, High Pressure Coverings.

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Skinner Chuck Co., The, New Britain, Conn.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Whitman and Barnes, Inc., Detroit, Mich.

Arbors, Lathe

Alvord-Polk Tool Co., Millersburg, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Tool & Engineering Co., Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Trevor Mfg. Co., Lockport, N. Y.
Union Manufacturing Co., New Britain, Conn.
Whitman and Barnes, Inc., Detroit, Mich.

Arbors, Milling Machine

Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Tool & Engineering Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Van Norman Machine Tool Co., Springfield, Mass.

Arbors, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Filer & Stowell Co., The, Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Hermance Machine Co., Williamsport, Pa.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Penn.
Nelson Bros. Co., Saginaw, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Standard Tool Co., Cleveland, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.

Arbors, Shell Reamer

Alvord-Polk Tool Co., Millersburg, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Chicago Tool & Engineering Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland, Ohio.
Gairing Tool Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Arches, Boiler

Farquhar, A. B., Co., Ltd., York, Pa.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Industrial Gloves Corp., Danville, Ill.
McLeod & Henry Co., Troy, N. Y.

Asbestos Products

(See specific item desired)

Asphalt Roofing

(See "Roofing")

Attachments

(Refer to Specific Type of Attachment Desired, such as "Drilling Attachments," "Lathe Attachments," "Milling Attachments," "Grinding Attachments," "Tapping Attachments," etc.)

Augers, Hollow

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Star Bit & Tool Co., Rockford, Ill.

Augers, Millwrights'

Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Millers Falls Co., Greenfield, Mass.
Star Bit & Tool Co., Rockford, Ill.

Augers, Miners'

Leetonia Tool Co., The, Leetonia, Ohio.

Augers, Pipe and Sewer, Flexible

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Rapid Spring Co., The, Pittsburgh, Pa.

Augers and Diggers, Post Hole

Iwan Brothers, South Bend, Ind.
Leetonia Tool Co., The, Leetonia, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Augers, Ship

Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Millers Falls Co., Greenfield, Mass.
Star Bit & Tool Co., Rockford, Ill.

Augers, Well or Earth

Coffing Hoist Co., Danville, Ill.
Dobbins Core Drill Co., Inc., Long Island City, N. Y.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Awls, Belt

Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.

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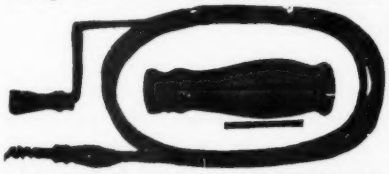

ALLAN J. COLEMAN
116 W. Illinois St. Chicago
Manufacturer

Manufacturers' Belt Hook Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Raniville, F., Co., Grand Rapids, Mich.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.

Awls and Reamers, Belt, Combination

American Swiss File & Tool Co., Elizabeth, N. J.
Schieren, Chas. A., Co., New York, N. Y.

Awls, Scratch, Marking

American Swiss File & Tool Co., Elizabeth, N. J.
Crescent Tool Co., Jamestown, N. Y.
Evansville Tool Works, Inc., Evansville, Ind.
Goodell-Pratt Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Whitney Metal Tool Co., Rockford, Ill.

Awning Blocks

(See "Blocks, Awning")

Awnings, Window

Hettrick Mfg. Co., The, Toledo, Ohio.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.

Axes and Hatchets

All States Roofers Equipment & Material Co., Chicago, Ill.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Collins Co., The, Collinsville, Conn.
Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
General Sales Co., Norwich, N. Y.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kelly Axe & Tool Co., Charleston, W. Va.
Leetonia Tool Co., The, Leetonia, Ohio.
Mann Edge Tool Co., Lewistown, Pa.
Maydole, David, Tool Corp., Norwich, N. Y.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

B-Liner

Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.

Babbitt Metal

(See "Metal, Babbitt")

Babbitt Retaining Material

Canfield, M. C., Sons Co., Newark, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.

Back Stops, Conveyor

Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., Marion, Ohio.
Link-Belt Co., Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bags, Canvas, Shipping

McElmoyl & Co., Inc., Groveville, N. J.

Bags, Coal

Atlantic Manufacturing Co., Wilmington, Del.
Buffalo Batt & Felt Corp., Depew, N. Y.
Gross Rubber Co., Sharon, Pa.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.

Bags, Dust-On

Superior Flake Graphite Co., Chicago, Ill.

Bags, Mechanics' Tool

Atlantic Manufacturing Co., Wilmington, Del.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Empire Level Manufacturing Co., Milwaukee, Wis. (Canvas tool bags for plumbers, etc.)
Field, R. B., & Co., Worcester, Mass.

Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Stevens Walden, Inc., Worcester, Mass.

Bags, Mail

Cook, H. N., Belting Co., San Francisco, Cal.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Ohio Buff & Mfg. Co., The, Cincinnati, Ohio.

Balancing Machines or Ways

(See "Machines or Ways, Balancing")

Balers, Paper

(See "Presses, Baling")

Balers—Sack, Garment, Rag, Etc.

Cardwell Machine Co., The, Richmond, Va.
Economy Baler Co., Ann Arbor, Mich.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Rowe Manufacturing Co., Galesburg, Ill.

Balls, Flag Pole, Copper

Boekel, Wm., & Co., Philadelphia, Pa.
Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Harris, Arthur, & Co., Chicago, Ill.

Balls, Fuller

Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mechanical Rubber Co., Passaic, N. J.
Rhopac Products Corp., Chicago, Ill.

Balls, Steel

Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Heiz & Heiz, Inc., Brooklyn, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Balls, Tank

Boekel, Wm., & Co., Philadelphia, Pa. (Copper)
Clow, James B., & Sons, Chicago, Ill.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mechanical Rubber Co., Passaic, N. J.

Bands, Band Saw

American Saw & Mfg. Co., Springfield, Mass.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Goodall Rubber Co., Philadelphia, Pa.
Holcomb, A. L., Co., Grand Rapids, Mich.
Home Rubber Co., Trenton, N. J.
Jones Superior Machine Co., Chicago, Ill.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N.J.
Millers Falls Co., Greenfield, Mass.

Band Saw Bands

Two standard grades in regular sizes.

Special grades in any dimensions required.

Immediate shipments from stock on emergency orders.

Elkhart Rubber Works
Elkhart, Indiana

Moak Machine & Tool Co., Port Huron, Mich.
New York Belting & Packing Co., Passaic, N. J.
Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
Racine Tool & Machine Co., Racine, Wis.
Republic Rubber Co., The, Youngstown, O.
Sandvik Steel, Inc., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Packing & Rubber Co., New York, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Whitehead Bros. Rubber Co., Trenton, N.J.

Bands, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Standard Packing & Rubber Co., New York, N. Y.
Stevens Walden, Inc., Worcester, Mass.

Bands, Pipe Covering

Acme Asbestos Covering & Flooring Co., Chicago, Ill.

Barrels, Burnishing

Baird Machine Co., The, Bridgeport, Conn.
Globe Machine & Stamping Co., The, Cleveland, Ohio.

Barrels, Sand Blast

Baird Machine Co., The, Bridgeport, Conn.
Macleod Co., The, Cincinnati, Ohio.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
Ruemelin Mfg. Co., Milwaukee, Wis.

Barrels, Shop

Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Meurer Steel Barrel Co., Inc., Newark, N. J.
Republic Steel Package Co., The, Cleveland, Ohio.

Barrels and Drums, Steel

Chapin, R. E., The, Batavia, N. Y.
Geuder, Paeschke & Frey Co., Milwaukee, Wis.
Meurer Steel Barrel Co., Inc., Newark, N. J.
Republic Steel Package Co., The, Cleveland, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.

Barrels and Mills, Tumbling

Baird Machine Co., The, Bridgeport, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Tessmer Machine & Tool Co., Detroit, Mich.

Barrels, Working

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Midland Mfg. Co., Ft. Worth, Tex.
Mountville Mfg. Co., Mountville, Penn.

Barrows

American Steel Scraper Co., The, Sidney, Ohio.
Bryan Wheelbarrow Co., Bryan, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.

JACKSON

The Original

Pressed Steel Tray WHEELBARROW

Note These Features

Tubular Steel Handles
Pressed Tray with Reinforced Edges
Riveted Channel Legs with heavy shoes
Malleable Iron Brackets of sand proof construction
Non-Slip Device positively prevents tray from sliding forward on frame and coming in contact with wheel

Made in capacities of 3, 4 and 6 cubic feet
Wheels 16" diameter, of fabricated steel, malleable iron or with 16" x 4" single tube type pneumatic tires

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Red Star Products Corp., Cleveland, Ohio.
Sidney Steel Scraper Co., The, Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Barrows—Coal, Coke and Ash

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Barrows, Concrete

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
General Wheelbarrow Co., The, Cleveland, Ohio.
Fairbanks Co., The, New York, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

Barrows, Contractors'

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Barrows, Foundry and Furnace Charging

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.

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Fairbanks Co., The, New York, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Garden and General Utility

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Barrows, Measuring

Fairbanks Co., The, New York, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Mine

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

Barrows, Mortar

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

Barrows, Ore

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Pig Iron

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Barrows, Tubular

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland, Ohio.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Mountville Mfg. Co., Mountville, Pa.
Sidney Steel Scraper Co., Sidney, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

Bars, Boring

Chicago Tool & Engineering Co., Chicago, Ill.
Gairing Tool Co., Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Hannifin Mfg. Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kelly Reamer Co., Cleveland, Ohio.
McCrosky Tool Corp., Meadville, Pa.
Madison Manufacturing Co., Muskegon, Mich.
Van Norman Machine Tool Co., Springfield, Mass.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Bars, Bronze, Cored and Solid

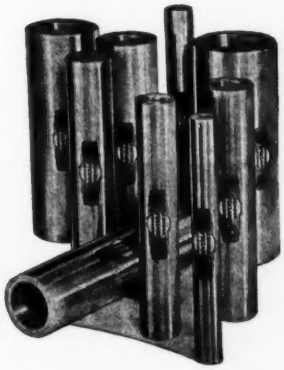
Allen, W. D., Mfg. Co., Chicago, Ill.
Aluminum Industries, Inc., Cincinnati, O.
American Injector Co., Detroit, Mich.

JOHNSON

UNIVERSAL

Completely Machined

BRONZE BARS



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4. Saves over 25% in weight.
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Complete machining of the bore, O.D. and ends means a 1/64" cut will bring it to size. Stops all rejections because blow-holes are eliminated.

For over 60 years, the alloy, Copper 80, Tin 10, Lead 10, has been the choice of exacting engineers. Because it's the best General Purpose Bronze, it is used in Johnson Universal Bars.

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Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Buckeye Brass & Mfg. Co., The, Cleveland, Ohio.
Buffalo Foundry & Machine Co., Buffalo.
Bunting Brass & Bronze Co., Toledo, Ohio.
Consolidated Metals Corp., Detroit, Mich.
Dayton Bronze Bearing Co., Dayton, Ohio.
Everitt Co., The, Boston, Mass.
Edna Brass Mfg. Co., The, Cincinnati, O.
Fredericksen Co., Saginaw, Mich.
Great Lakes Chemical Works, Detroit.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Johnson Bronze Co., New Castle, Pa.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.
Milwaukee Valve Co., Milwaukee, Wis.
Moccasin Bushing Co., Chattanooga, Tenn.
National Lead Co., New York, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Premier Brass Corp., St. Louis, Mo.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Scovill Mfg. Co., Waterbury, Conn. (Solid only)
Sumet Corp., Buffalo, N. Y.
United American Metals Corp., Brooklyn.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Bars, Claw, Wrecking

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clark Manufacturing Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Marshalltown Trowel Co., Marshalltown, Iowa.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Bars, Crow, Pinch and Pry

American Swiss File & Tool Co., Elizabeth, N. J.
Clark Manufacturing Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Bars, Grate

Elkhart Iron Works, Elkhart, Ind.
Farquhar, A. B., Co., Ltd., York, Pa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Morse Grate Bar Co., Inc., Providence, R. I.
Vogt, Henry, Machine Co. Louisville, Ky.

Bars, Pipe Hanger Extension

Newbury Manufacturing Co., Monroe, N.Y.

Bars, Post Hole Digging

Bethlehem Steel Co., Bethlehem, Pa.
Hubbard & Co., Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Leach Co., Oshkosh, Wis.
Leetonia Tool Co., The, Leetonia, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Bars, Tamping

Clow, James B., & Sons, Chicago, Ill.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Ingersoll-Rand Co., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Leach Co., Oshkosh, Wis.

Base Plates

(See "Plates, Base")

Bases, Oil Cup

Allen, W. D., Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.

Basins, Blow-Off

(See "Catch Basins, Blow-off, Cast Iron")

Basins, Wash

Clow, James B., & Sons, Chicago, Ill.
Fords Porcelain Works, Perth Amboy, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.

Baskets, Canvas

McElmoyl, W. J., & Co., Inc., Groveville, N. J.

Baskets, Dipping

Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Cambridge Wire Cloth Co., Cambridge, Md.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Littleford Bros., Cincinnati, Ohio.
Roebling's, John A., Sons Co., Trenton, N. J.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

NEW 64 SIZES
"LUBRICO-PREMIER"
FINISHED INSIDE AND
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It's here...Buckeye's new "sales appeal" line... just what your customer wants... a quality bronze... ready for use... in short lengths.

Representing a new manufacturing process, "Lubrico-Premier" bronzes are of highest quality... with uniform analysis throughout. They have been subjected to the most exacting laboratory and field tests without seizing or scoring ... are adapted for wide industrial use... require but infrequent lubrication.

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Bobker Bearing Co. 270 Central Ave., Newark, N. J.
Atlas Brass Foundry Co. 1901 Santa Fe Ave., Los Angeles, Calif.

For Street Addresses of Manufacturers See the "Names and Addresses" Section

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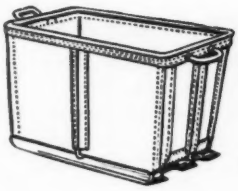
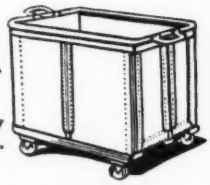
Strong and Durable Handy for a Wide Variety of Mill and Factory Work.



Smooth inside. Will not damage rayon, silk or other contents



Equipped with casters. Wood or canvas covers may be attached.

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Littleford Bros., Cincinnati, Ohio.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
Rochester Can Co., Rochester, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Baskets, Towel

Continental-Diamond Fibre Co., Newark, Del.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
Rochester Can Co., Rochester, N. Y.

Baskets, Waste

Angle Steel Stool Co., Plainwell, Mich.
Buffalo Wire Works Co., Inc., Buffalo.
Cyclone Fence Co., Waukegan, Ill.
Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
Rochester Can Co., Rochester, N. Y.
Washburn Co., The, Worcester, Mass.
Wheeling Corrugating Co., Wheeling, W. Va.

Bearings, Babbitt

(See "Metal, Bearing, Anti-Friction and Babbitt")

Bearings, Ball, Lineshaft

Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chapman Bearing & Engineering Corp., Buffalo, New York
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris & Reed Mfg. Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown, N. Y.
Mueller Brass Co., Port Huron, Mich.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schatz Mfg. Co., Poughkeepsie, N. Y.
S.K.F. Industries, Inc., Philadelphia, Pa.
Schatz Mfg. Co., Poughkeepsie, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Ball, Machinery

Auburn Ball Bearing Co., Rochester, N. Y.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Boston Gear Works, Inc., North Quincy, Mass.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris & Reed Mfg. Co., Chicago, Ill.
Hudson-Sharp Machine Co., Green Bay, Wis.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown, N. Y.
Messinger Bearings, Inc., Philadelphia, Pa.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
S.K.F. Industries, Inc., Philadelphia, Pa.
Schatz Mfg. Co., Poughkeepsie, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Refer to the

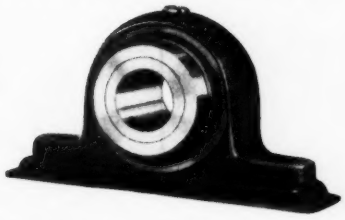
"Trade Name Index"

for trade names which are different from the company's name

Bearings, Bronze

American Injector Co., Detroit, Mich.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bearium Metals Corporation, Rochester, N. Y.
Boston & Lockport Block Co., East Boston.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Buckeye Brass & Mfg. Co., The, Cleveland.
Buffalo Foundry & Machine Co., Buffalo.
Bunting Brass & Bronze Co., Toledo, Ohio.
Cadman, A. W., Mfg. Co., Pittsburgh, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Everitt Co., The, Boston, Mass.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Fredericksen Co., Saginaw, Mich.

Now You Can Have Ball Bearing Advantages at Low Cost



THE Dodge "D-H" line of Ball Bearing Pillow Blocks and Units was designed to provide anti-friction advantages at low cost. These bearings are especially suitable for application to light duty conveyors, blowers, air conditioning units, textile machinery, light wood and metal working machinery, as well as power transmission service within the range of their load capacity.

Write for Bulletin A-63 giving full particulars and prices.

DODGE MISHAWAKA

DODGE MANUFACTURING CORPORATION
MISHAWAKA, INDIANA

BRONZE

BUSHINGS
- Plain Cast Bronze
- General Purpose Bronze
- Cast Bronze Graphited
- Plain Sheet Bronze
- Sheet Bronze Graphited
- Electric Motor Service

BEARINGS
- Bronze-Backed Babbitt-Lined
- Steel-Backed Babbitt-Lined

BARS
- Johnson UNIVERSAL Completely Machined solid and cored

Lead and Tin Base Babbitts

Car Brasses

Locomotive and Mill Bronzes

Miscellaneous Rough or Machined Castings

Single and double flanged plain cast bearings and babbitt lined bearings are made to blue print specifications. 600 stock sizes in plain bushings, bar bronze and cast graphited bushings are listed in Bulletin X349.

JOHNSON BRONZE
537 South Mill St.,
NEW CASTLE, PA.

Great Lakes Chemical Works, Detroit.
Harris, Arthur, & Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
Neveroil Bearing Co., Wakefield, Mass.
Oberdorfer, M. L., Brass Co., Syracuse.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sumet Corp., Buffalo, N. Y.
Torrey Roller Bushing Works, Bath, Me.
Torrington Mfg. Co., The, Torrington, Conn.
Williams, E. A., & Son, Inc., Jersey City, N. J.
Wood's, T B., Sons Co., Chambersburg, Pa.

Bearings, Bronze, Babbitt Lined

Atlas Brass Foundry Co., The Columbus, O.
Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting Brass & Bronze Co., Toledo, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Great Lakes Chemical Works, Detroit.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
National Lead Co., New York, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Bearings, Eccentric

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Filer & Stowell Co., The Milwaukee, Wis.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
Messinger Bearings, Inc., Philadelphia, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings and Bushings, Electric Motor

Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting Brass & Bronze Co., Toledo, Ohio.
Fafnir Bearing Co., The, New Britain, Conn.
Hyatt Roller Bearing Co., Newark, N. J.
Johnson Bronze Co., New Castle, Pa.
Norma-Hoffman Bearings Corp., Stamford, Conn.
Roller Bearing Co. of America, Trenton, N. J.
S.K.F. Industries, Inc., New York, N. Y.
Shafer Bearing Corp., Chicago, Ill.
Sumet Corp., Buffalo, N. Y.
Timken Roller Bearing Co., The, Canton, O.

Bearings, Post

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Link-Belt Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T, B., Sons Co., Chambersburg, Pa.

Bearings, Pressed Steel

Saginaw Stamping & Tool Co., Saginaw, Mich.

Bearings, Quill

Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

ELECTRIC MOTOR SERVICE BUSHINGS

100 sizes for the more popular Electric Motors ranging from 1/6 to 15 horsepower.

Cast in Leaded Bronze.

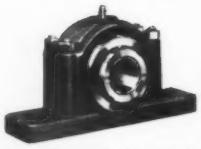
JOHNSON BRONZE
537 South Mill St.
New Castle, Pa.

Bearings, Roller, Lineshaft

Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bond Foundry and Machine Co., Manheim, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hyatt Roller Bearing Co., Newark, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Liggnum-Vitae Woodturning Co., Inc., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
Medart Co., The, St. Louis, Mo.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Jones-TIMKEN

PILLOW BLOCKS

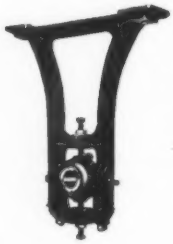


The Jones-Timken Pillow Blocks are rugged in construction and capable of carrying heavy radial and thrust loads or combinations of loading in any resultant direction when necessary. They are easily mounted on the shaft and possess an effective seal arrangement to retain lubrication and prevent the admission of dust or foreign matter to the internal parts.

All Pillow Blocks are self aligning.

Furnished in sizes 15/16" bore to 9" bore inclusive.

DROP HANGERS



Hanger Bearings with four point hanger frames can also be furnished. These bearings contain the same parts as used for the standard Pillow Block construction. They can be furnished in sizes from 1-7/16" bore to 3-7/16" bore inclusive.

Jones-Timken Drop Hangers are inter-changeable with existing plain bearing hangers.

Prices and distributor discounts on application. A Jones District Office is near you.

BULLETIN ON REQUEST

W. A. JONES FOUNDRY & MACHINE CO.
4449 ROOSEVELT ROAD CHICAGO, ILL.
Offices in Principal Cities

UMI

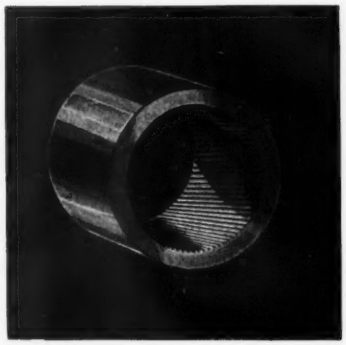
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Timken Roller Bearing Co., The, Canton, O.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bearings, Roller, Machinery

American Roller Bearing Co., Pittsburgh.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hyatt Roller Bearing Co., Newark, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Liggnum-Vitae Woodturning Co., Inc., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
Messinger Bearings, Inc., Philadelphia, Pa.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Orange Roller Bearing Co., Orange, N. J.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Timken Roller Bearing Co., The, Canton, Ohio.
Tyson Roller Bearing Corp., Massillon, Ohio.

Bearings, Self-Lubricating

Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Basic Mineral Corp., Pittsburgh, Pa.
Bearium Metals Corporation, Rochester, N. Y.
Bond Foundry and Machine Co., Manheim, Pa.
Boston & Lockport Block Co., East Boston.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.



SELF . . . . LUBRICATING

For inaccessable bearing applications in or where lubrication is likely to be neglected.

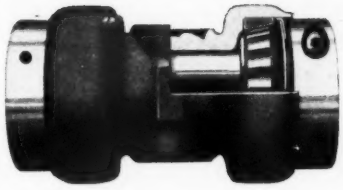
Alternate layer portions of bronze and graphite provides from 40 to 45% graphite contact with the shaft. Dovetailed slots hold the graphite permanently.

Available in bores from 5/8" to 2" in 1/16" steps up to 6 inches in length.

Write for Bulletin X340.

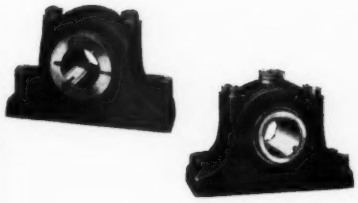
JOHNSON BRONZE
537 So. Mill St., New Castle, Pa.

REG. U.S. PAT. OFF.
DODGE
MISHAWAKA
TIMKEN BEARINGS
for Every Service



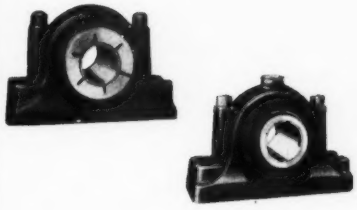
Dodge-Timken Roller Hanger Bearing

A rugged, completely enclosed, factory adjusted hanger bearing. Easy to install as a unit without disassembling, thereby avoiding possibility of dust and dirt entering bearing.



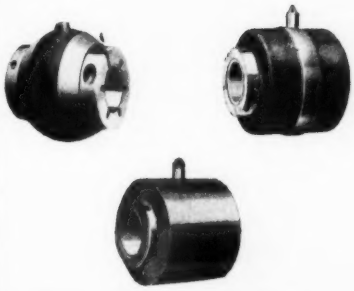
Dodge-Timken Clamp Sleeve Pillow Blocks

The Ball and Socket Type is fully self-aligning. Bearings are effectively closed against dust and dirt by indestructible steel seals. Adjustments are made at factory and need not be altered by user. The Ball and Socket Type is non-expansion and the S-1 provides for expansion.



Dodge-Timken Special Duty (Adapter Type) Pillow Blocks

The Special Duty Line is adapted for High Speeds and Heavy Loads. Duplex Timken Tapered Roller Bearings are mounted on Tapered Sleeves. Provide full ball and socket self-alignment—full radial and thrust capacity. Equipped with automotive piston ring seals.



Dodge-Timken Roller Bearing Unit Mounts

These unit mounts are available in both Clamp Sleeve and Special Duty (Adapter Type) covering a wide range of requirements.

Write for catalogue.

Dodge Manufacturing Corporation
Mishawaka, Indiana

Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co.. The. Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Johnson Bronze Co., New Castle, Pa.
Liggnum-Vitae Woodturning Cd., Inc., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Devices Co., Bloomington, Ill.
Metal Saw & Machine Co., Inc., Springfield, Mass.
National Bearing Metals Corp., St. Louis.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Torrey Roller Bushing Works, Bath, Me.
Upson-Walton Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings—Shaft—Chain, Collar, Ring and Wick Oiling

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Pulley Co., The, Philadelphia, Pa.
Arguto Oilless Bearing Co., Philadelphia.
Bond Foundry and Machine Co., Manheim, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill. (Ring and wick oiling)
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Roller Bearing Co. of America, Trenton, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago. Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Shaft, Step and Wall

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bearium Metals Corporation, Rochester, N. Y.
Bond Foundry and Machine Co., Manheim, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hyatt Roller Bearing Co., Newark, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Take-Up

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bearium Metals Corporation, Rochester, N. Y.
Bond Foundry and Machine Co., Manheim, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co.. The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Orange Roller Bearing Co., Orange, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Shafer Bearing Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill. (Conveyor)
Timken Roller Bearing Co., The, Canton, O.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Thrust

American Roller Bearing Co., Pittsburgh.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bearium Metals Corporation, Rochester, N. Y.
Boston Gear Works, Inc., North Quincy, Mass.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The Cleveland, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, Ohio.
Huron Industries, Inc., Alpena, Mich.
Liggnum Woodturning Co., Inc., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown. N. Y.
Messinger Bearings, Inc., Philadelphia, Pa.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
Orange Roller Bearing Co., Orange, N. J.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Timken Roller Bearing Co., The, Canton, Ohio.
Tyson Roller Bearing Corp., Massillon, O.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bearings, Vertical

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Bantam Ball and Roller Bearing Co., South Bend, Ind.
Bearium Metals Corporation, Rochester, N. Y.
Bond Foundry and Machine Co., Manheim, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp.. Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, Ohio.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Co., Chicago, Ill.
M-C-R Bearings Service Co., Jamestown, N. Y.
Orange Roller Bearing Co., Orange, N. J.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bells

(See "Gongs and Bells")

Belt Cement

(See "Cement, Belt")

What Gives VEELOS Balata Belting its Great Strength?

This advertisement is written for the buyer of belting who wants to know what prompts the manufacturers of VEELOS Balata Belting to say that it is the strongest belting made.

The materials used in the manufacture of VEELOS Belting are the finest American long staple cotton and balata gum. Long staple or sea island cotton is a superior grade of American cotton with extra long fibres. From this cotton is made yarn so strong it cannot be broken with the bare hands, which is woven into 34-ounce duck that has a tensile strength of 620 pounds per ply per inch in width.

This closely woven fabric is treated by our special process with balata, a gum obtained from a tropical tree, so tough that it is especially suitable for the manufacture of belting. The treated gum is forced into the canvas under heavy pressure until the fabric is thoroughly saturated and coated. It is then folded to make the plies and by a combination of heat and great pressure the plies are so thoroughly welded together that the finished belting is of practically homogeneous construction. No amount of wear can separate the plies or allow moisture to work into the fibers.

By special process of manufacture the stretch of VEELOS Genuine Balata Belting is entirely eliminated. It has uniform tension throughout the length of every roll, and absolute uniformity in width, thickness and balance. It insures that true running on the pulleys that makes the belting user glad that he bought VEELOS.

DISTRIBUTORS: VEELOS Balata and our new Keystone Canvas Stitched Belting will put new life into your belting department. Write for discounts.

THE MANHEIM MANUFACTURING & BELTING COMPANY

Manheim, Pennsylvania

New York City 350 Broadway — **Chicago, Ill.** 407 So. Dearborn St

See also our advertisements on KEYSTONE Canvas Stitched Belting, VEELOS "V" Belting and VEELOS Balata Pump Valves.

"VICTOR"
Balata Belting
Water-proof, weather-proof, sanitary, strong, and durable. The best all-round Belt for driving, conveying, and elevating.
MADE BY
VICTOR BALATA AND TEXTILE BELTING COMPANY
53 Park Place, New York
345 West Austin Avenue, Chicago
Factory, Easton, Pa.

Belt, Cotton Gin Distributor, Rubber Spiked

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, O.

Belt Dressing

(See "Dressing, Belt")

Belt Hooks, Lacers and Lacings

(See "Fasteners and Hooks, Belt," "Lacers, Belt," and "Lacing, Belt")

Belt Sticks for Putting Belts on Moving Pulleys

(See "Sticks, Belt")

Belt Lacing Tools

(See "Tools, Belt Lacing")

Belting, Abrasive

Barton, H. H., & Son Co., Troy, N. Y.
Behr-Manning Corp., Troy, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Carborundum Co., The, Niagara Falls, N. Y.
Cleveland Container Co., The, Cleveland, O.
Clover Mfg. Co., Norwalk, Conn.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Minnesota Mining & Mfg. Co., St. Paul.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Victor Balata & Textile Belting Co., New York, N. Y.
Walls Sales Corp., New York, N. Y.

Belting, Balata

Allentown Leather Belting Co., Allentown. Pa,
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Dick, R. & J., Co., Inc., Passaic, N. J.
Himmelein & Bailey, Inc., Camden, N. J.

A NEW BELTING
KEYSTONE
Canvas Stitched Belting
KEYSTONE Canvas Stitched Belting was made to fill a need for a good quality, serviceable belt that would sell at a price to fit the limited budgets of many industrial plants.
As manufacturers of the well known VEELOS Balata Belting we are quantity producers of the finest and strongest of belting canvas. The same canvas used in VEELOS Belting is used for making KEYSTONE Canvas Stitched Belting. The only difference in materials is in the treatment. Keystone is impregnated with a high grade oil and wax compound that waterproofs the fabric and gives it a gripping surface and great durability.
Ask for sample and Distributors' prices.
The Manheim Manufacturing and Belting Company
Manheim, Pennsylvania
New York City, 350 Broadway — Chicago, Illinois, 407 So. Dearborn St.
See advertisements on VEELOS Balata Belting and our new "V" Belting.

Manheim Mfg. & Belting Co., Manheim, Pa.
Marion Machine Foundry & Supply Co., Marion, Ind.
Missouri Belting Co., St. Louis, Mo.
Rahman, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Victor Balata & Textile Belting Co., New York, N. Y.

Belting and Brushes, Sifter Brush

(See "Sifter Brush Belting and Brushes")

Belting, Canvas, Stitched

Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Chesapeake Belting Co., Baltimore, Md.
Chicago Belting Co., Chicago, Ill.
Couse & Bolten, Inc., Newark, N. J.

HETTRICK
"Hettrick" is a name known throughout the country for quality canvas products. America's factories, shops and farms have for forty years been using Hettrick belts for transmitting power and for conveying and elevating purposes. That's one of the reasons why they are easy and profitable for distributors to sell.
Industrial Belts
HETMACO
A belting specially made for power transmission. Suitable for all drives except over small high speed pulleys. Strength of fabric and the Hettrick method of treatment make it highly resistant to shock loads, as well as to dusty and oily conditions.
MALABAR
For general elevating and conveying service, slider or roller bed, for handling of food stuffs, bulk material, package goods, hot materials, "Malabar" is a dependable belting, even under severe operating conditions.
Agricultural Belts
The name "Hettrick" is used on all our stitched canvas belting made for agricultural purposes, including threshing, shelling, feed grinding, husking, shredding, sawing and pumping. Endless belts are carried in stock. Hettrick Belting is known wherever power is used in agricultural production.
Engineering Department
As a service to our trade, which extends to every field of industry, and to our distributors, we have an engineering department which analyzes conditions under which belting must operate and makes suggestions and recommendations. Take advantage of this belt engineering service.
Belting Distributors are requested to write for further information.
Belting Department
THE HETTRICK MFG. CO.
TOLEDO, OHIO

"FLEXMORE"
Balata Belting
An extremely flexible belting, made of specially-woven duck, for high speeds and for use over very small pulleys.
MADE BY
VICTOR BALATA AND TEXTILE BELTING COMPANY
53 Park Place, New York
345 West Austin Avenue, Chicago
Factory, Easton, Pa.

"AMPERE"
Canvas Stitched Belting
Furnished in red, black, or paraffin-treated. Recommended for transmission, conveying, and elevating.
MADE BY
VICTOR BALATA AND TEXTILE BELTING COMPANY
53 Park Place, New York
345 West Austin Avenue, Chicago
Factory, Easton, Pa.

Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Fenwick-Reddaway Mfg. Co., Newark, N. J.
Gandy Belting Co., Grand Rapids, Mich.
Hettrick Mfg. Co., The, Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Imperial Belting Co., Chicago, Ill.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Link-Belt Co., Chicago, Ill.
McIlroy Belting Works, Hammond, Ind.
Main Belting Co., Philadelphia, Pa.
Manheim Mfg. & Belting Co., Manheim, Pa.
Marion Machine Foundry & Supply Co., Marion, Ind.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Rahman, Geo., & Co., The, New York.
Raniville, F., Co., Grand Rapids, Mich.
Victor Balata & Textile Belting Co., New York, N. Y.

Belting, Chain or Link

Cambridge Wire Cloth Co., Cambridge, Md.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Foote Gear Works, Inc., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Belting, Combination Leather and Fabric

Allentown Leather Belting Co., Allentown, Pa.
Alexander Brothers, Inc., Philadelphia.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Himmelein & Bailey, Inc., Camden, N. J.
McIlroy Belting Works, Hammond, Ind.
Mountville Mfg. Co., Mountville, Pa.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Whiting Leather & Belting Co., Long Island City, N. Y.

Belting, Composition

Allentown Leather Belting Co., Allentown, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Burrell Belting Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Duryea Manufacturing Co., Bayonne, N. J.
Fabreeka Belting Co., Boston, Mass.

"PALMETTO"
Solid Woven Cotton Belting
A high-grade belting with a fine, tight weave and smooth surface.
MADE BY
VICTOR BALATA AND TEXTILE BELTING COMPANY
53 Park Place, New York
345 West Austin Avenue, Chicago
Factory, Easton, Pa.

"EASTON"
Solid Woven Cotton Belting
For handling food products and for general light conveying. Largest stock and greatest number of sizes available for quick deliveries.
MADE BY
VICTOR BALATA AND TEXTILE BELTING COMPANY
53 Park Place, New York
345 West Austin Avenue, Chicago
Factory, Easton, Pa.

Gandy Belting Co., Grand Rapids, Mich.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hettrick Mfg. Co., The, Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Imperial Belting Co., Chicago, Ill.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mountville Mfg. Co., Mountville, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Ton-Tex Corp., Grand Rapids, Mich.
Victor Balata & Textile Belting Co., New York, N. Y.

Belting, Conveyor and Elevator

Alexander Brothers, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
American Belting Companies, The, Baltimore, Md.
Atlantic Manufacturing Co., Wilmington, Del.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Cambridge Wire Cloth Co., Cambridge, Md.
Chain Belt Co., Milwaukee, Wis.
Chicago Belting Co., Chicago, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Duryea Manufacturing Co., Bayonne, N. J.
Fabreeka Belting Co., Boston, Mass.
Franklin Cotton Mill Co., The, Cincinnati, Ohio.
Gandy Belting Co., Grand Rapids, Mich.
Globe Woven Belting Co., Buffalo, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Hunter, James, Machine Co., North Adams, Mass.
Imperial Belting Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Link-Belt Co., Chicago, Ill.
McIlroy Belting Works, Hammond, Ind.
McLanathan, F. W., & Son, Lawrence, Mass.
Main Belting Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mechanical Rubber Co., The, Passaic, N. J.
Michigan Wire Cloth Co., Detroit, Mich.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
New York Belting & Packing Co., Passaic, N. J.
O'Meara Belting Co., Omaha, Neb.
Philadelphia Belting Co., Philadelphia.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Packing & Rubber Co., New York, N. Y.
Stanley Belting Corp., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Thermoid Rubber Co., Trenton, N. J.
Ton-Tex Corp., Grand Rapids, Mich.
United States Abestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa. (Asbestos)
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whitehead Bros. Rubber Co., Trenton.
Wickwire Spencer Steel Co., New York.

Belting, Cotton, Solid Woven

Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.

TON TEX
Reg. U. S. Pat. Off.
A LEADER IN ITS FIELD
The Belting that Meets Transmission Needs
TON-TEX
The best all-purpose Transmission Belt. Adapted as well to Conveying purposes. Flexible, full of life, resilient, powerful in tensile strength and not affected by water, steam, moisture or dampness. Made 48 in. wide by 325 ft. long. Can be cut to desired widths. Runs straight and true without fraying. Dealers will find TON-TEX profitable to handle and satisfactory from a repeat order standpoint.
TON-TEX CORP.
GRAND RAPIDS CHICAGO NEW YORK

"PENNTEX"
Solid Interwoven Belt
A super-belt for slow, difficult, hard-pull power drives. Furnished single, double, and triple.
MADE BY
VICTOR BALATA AND TEXTILE BELTING COMPANY
53 Park Place, New York
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Factory, Easton, Pa.

"WEARTEX"
Solid Interwoven Belt
A super-belt for conveying and elevating purposes. Can be furnished with acid or heat resisting impregnation and coating. Also made with "Pile face" cover. All plies from 3 to 8.
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53 Park Place, New York
345 West Austin Avenue, Chicago
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U.S. PAT OFFICE

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Identified by the Green Edge and the Registered Trade Mark

A permanently flexible belt for Power Transmission, Elevating and Conveying. Sold through Distributors for all Agricultural and Industrial Belting needs.

GANDY BAR BELT DRESSING
GANDY ELASTIC RED COATING

GANDY BELTING CO.
GRAND RAPIDS CHICAGO NEW YORK

Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Chicago Belting Co., Chicago, Ill.
Duryea Manufacturing Co., Bayonne, N. J.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Fenwick-Reddaway Mfg. Co., Newark, N. J.
Franklin Cotton Mill Co., The, Cincinnati.
Gandy Belting Co., Grand Rapids, Mich.
Globe Woven Belting Co., Buffalo, N. Y.
Hettrick Mfg. Co., The, Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
McIlroy Belting Works, Hammond, Ind.
Manheim Mfg. & Belting Co., Manheim, Pa.
Missouri Belting Co., St. Louis, Mo.
O'Meara Belting Co., Omaha, Neb.
Rahman, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Russell Mfg. Co., Middletown, Conn.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stanley Belting Corp., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y. (Also inter-woven)
Webb, J. A., Belting Co., Inc., Buffalo.

Belting, Hair

Fenwick-Reddaway Mfg. Co., Newark.
Himmelein & Bailey, Inc., Camden, N. J.
Johnson Belting Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo.

FLAT and ROUND LEATHER BELTING

Raniville Flat and Round Leather Belting has behind it the prestige that comes with 60 years of leadership. Raniville "Star Brand" is made from the center cuts of carefully selected hides. It has no superior.

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To complete your belting needs Raniville manufacturers:—A complete line of Mechanical Leather Specialties, Belt Treatments and Belting Cements.

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Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Central Rubber & Supply Co., Indianapolis, Ind.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Evansville Leather & Belting Co., Evansville, Ind.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Johnson Belting Co., New York, N. Y.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
MacWatty Belting Co., Providence, R. I.
Milwaukee Leather Belting Co., Milwaukee, Wis.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Webb Belting Co., Kansas City, Mo.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Wing, J. T., & Co., Detroit, Mich.

Belting, Leather, Cone

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N. Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Counter & Leather Co., The Cincinnati, Ohio.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.
McLanathan, F. W., & Son, Lawrence, Mass.
McLeod Leather & Belting Co., Greensboro, N. C.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather Link

Alexander Brothers, Inc., Philadelphia.
Baltimore Belting Co., Baltimore, Md.

LEATHER BELTING
made from
TRIPLE STRETCHED LEATHER

Our Best Quality Belting is made exclusively from TRIPLE STRETCHED LEATHER. This is a GUARANTEE of minimum stretch in the finished product and an assurance to the user that the Belting, properly installed, will give longer service, with greatly reduced maintenance expense.

All Belting manufactured by us is now made with WATERPROOF CEMENT.

Our product is marketed practically entirely through Mill Supply Distributors. Our sales policy is so planned as to continually place the Distributor in a position to compete with direct selling manufacturers as well as other Mill Supply Distributors—AT A GOOD MARGIN OF PROFIT.

May we submit our proposition?

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Manufacturers of Flat and Round Leather Belting—and Leather Specialties.

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Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Whiting Leather & Belting Co., Long Island City, N. Y.

Belting, Leather, Rawhide

Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Bond, Charles, Co., Philadelphia, Pa.
Brooklyn Rawhide Mfg. Co., Brooklyn, N. Y.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Keystone Belting Co., Philadelphia, Pa.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Western Rawhide & Belting Co., Milwaukee, Wis.

Belting, Leather, Round and Twist

Allen, W. D., Mfg. Co., Chicago, Ill.
Alexander Brothers, Inc., Philadelphia.
Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown, Pa.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Bond, Charles, Co., Philadelphia, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.

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Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich. (Round only)
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Johnson Belting Co., New York, N. Y.
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
MacWatty Belting Co., Providence, R. I.
McLanathan, F. W., & Son, Lawrence, Mass.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Rahmann, Geo., & Co., New York, N. Y.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather, Steam Proof

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia.
Allentown Leather Belting Co., Allentown Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
Milwaukee Leather Belting Co., Milwaukee.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., & Co., New York, N. Y.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Leather, Waterproof

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Capen Belting & Rubber Co., St. Louis.
Central Rubber & Supply Co., Indianapolis, Ind.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Evansville Leather & Belting Co., Evansville, Ind.
Field, R. B., & Co., Worcester, Mass.

Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Ireson, Charles L., Co., Philadelphia, Pa.
Jerry Bros. Belting Co., Richmond, Va.
Johnson Belting Co., New York, N. Y.
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
McLean Manufacturing Corp., New York.
McLeod Leather & Belting Co., Greensboro, N. C.
MacWatty Belting Co., Providence, R. I.
Milwaukee Leather Belting Co., Milwaukee, Wis.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Philadelphia Belting Co., Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Slip Not Belting Corp., Kingsport, Tenn.
Smyth-Despard Co., Utica, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belting, Rope

(See "Rope, Manila," "Rope, Wire," and "Rope, Rawhide")

Belting, Rubber

Allentown Leather Belting Co., Allentown, Pa.
Atlantic Manufacturing Co., Wilmington, Del.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Capen Belting & Rubber Co., St. Louis.
Cincinnati, Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Eagle Belting Co., Chicago, Ill.

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•BELTS FOR *Conveying*

•BELTS FOR *Elevating*

•BELTS FOR *Transmitting Power*•

N. Y. B. P. Co. offers a complete line of Belts covering every industrial need, whether for conveyor, elevator or transmission purposes.

In each type of belt there are various grades, for each and every type of service.

The Distributor who recommends N. Y. B. & P. Belts can do so with the positive assurance that each Belt is designed to adequately and satisfactorily meet the requirements demanded of it.

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Hettrick Mfg. Co., The, Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Manufacturers Equipment Co., The, Dayton, Ohio.
Marion Machine Foundry & Supply Co., Marion, Ind.
Mechanical Rubber Co., Passaic, N. J.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
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Behr-Manning Corp., Troy, N. Y.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., Philadelphia, Pa.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Carborundum Co., The, Niagara Falls, N.Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Couse & Bolten, Inc., Newark, N. J.
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Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Franklin Cotton Mill Co., The, Cincinnati.
Gilmer, L H., Co., Philadelphia, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Ohio Buff & Mfg Co., The, Cincinnati, O.
Page Belting Co., Concord, N. H.
Raniville, F., Co., Grand Rapids, Mich.
Russell Mfg. Co., Middletown, Conn.
Walls Sales Corp., New York, N. Y.

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Buffalo Belting Works, Buffalo, N. Y.
Chicago Belting Co., Chicago, Ill.
Duryea Manufacturing Co., Bayonne, N. J.
Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, Ohio.
Graton & Knight Co., Worcester, Mass.
Keystone Belting Co., Philadelphia, Pa.
McLeod Leather & Belting Co., Greensboro, N. C.
Missouri Belting Co., St. Louis, Mo.
Nott, W. S., Co., Minneapolis, Minn.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Belts, Endless, Thresher, Etc.

Allentown Leather Belting Co., Allentown, Pa.
American Belting Companies, The, Baltimore, Md.
Atlantic Manufacturing Co., Wilmington, Del.
Baltimore Belting Co., Baltimore, Md.
Bennett-McGuire Belting Co., Inc., St. Louis, Mo.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Belting Works, Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cook, H. N., Belting Co., San Francisco.
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Gandy Belting Co., Grand Rapids, Mich.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Hunter, James, Machine Co., North Adams, Mass.
McIlroy Belting Works, Hammond, Ind.
Main Belting Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mechanical Rubber Co., The, Passaic, N. J.
Missouri Belting Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
Moloney Belting Co., Chicago, Ill.
New York Belting & Packing Co., Passaic, N. J.
O'Meara Belting Co., Omaha, Neb.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Republic Rubber Co., The, Youngstown, O.
Russell Mfg. Co., Middletown, Conn.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Victor Balata & Textile Belting Co., New York, N. Y. (Including car lighting belts)
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whitehead Bros. Rubber Co., Trenton, N. J.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Belts, Linemen's

Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Field, R. B., & Co., Worcester, Mass.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Sons, Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh, Pa.
Moloney Belting Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.
Taylor Belting Co., The, Indianapolis, Ind.

Belts, Safety, Miners'

Brown, Arthur S., Mfg. Co., Tilton, N. H.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Klein, M., & Sons, Chicago, Ill.
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Raniville, F., Co., Grand Rapids, Mich.
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Taylor Belting Co., The, Indianapolis, Ind.

Belts, "V"

Alexander Brothers, Inc., Philadelphia, Pa.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Baltimore Belting Co., Baltimore, Md.
Bond, Charles, Co., Philadelphia, Pa.
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VEELOS "V" BELTING
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The new VEELOS "V" Belting is made of rubber impregnated fabric, on the overlapping fish scale principle. Each unit or link is detachable and interchangeable.
No half links, special links or belt fasteners required. Sold by the foot. Any size endless "V" belt may be made up from the five stock widths.
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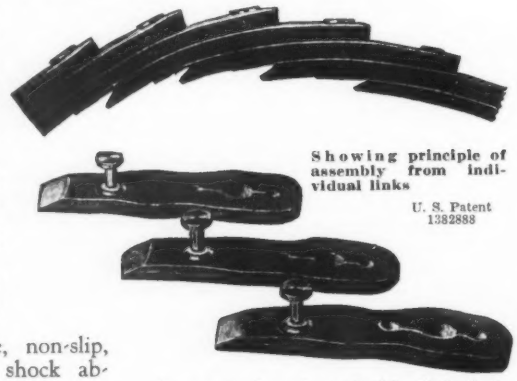

Showing principle of assembly from individual links
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A practical and profitable "V" belting for the industrial distributor. Small stock meets all needs. Ask for full information.

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Couse & Bolten, Inc., Newark, N. J.
Dayton Rubber Mfg. Co., The, Dayton, O.
Detroit Oak Belting Co., Detroit, Mich.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Eagle Belting Co., Chicago, Ill.
Foote Gear Works, Inc., Chicago, Ill.
Gates Rubber Co., The, Denver, Colo.
Gilmer, L. H., Co., Philadelphia, Pa.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Johnson Belting Co., New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Missouri Belting Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Ohio Valley Pulley Works, The, Maysville, Ky.
O'Meara Belting Co., Omaha, Neb.
Page Belting Co., Concord, N. H.
Raniville, F., Co., Grand Rapids, Mich.
Rahmann, Geo., & Co., New York, N. Y.
Republic Rubber Co., The, Youngstown, O.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Russell Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Taylor Belting Co., The, Indianapolis, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whiting Leather & Belting Co., Long Island, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Belts, Window Washers'

Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Imperial Brass Mfg. Co., Chicago, Ill.
Moloney Belting Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Safety Equipment Service Co., Cleveland.
Schieren, Chas. A., Co., New York, N. Y.

Bench Legs

(See "Legs, Bench")

Benches, Draw

Gears and Forgings, Inc., Cleveland, Ohio.
Oliver, W. W., Mfg. Co., The, Buffalo, N.Y.
Pollard Bros. Mfg. Co., Chicago, Ill.

Benches, Molders'

Pollard Bros. Mfg. Co., Chicago, Ill.

Benches, Pipe Cutting and Threading

Hollands Mfg. Co., Erie, Pa.
Market Forge Co., Everett, Mass.
Martin, H. P., & Sons, Owensboro, Ky.
Nye Tool & Machine Works, The, Chicago.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Benches, Saw, Portable

Boice, W. B. & J. E., Toledo, Ohio.

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V-TYPE BELTS
LARGE STOCKS QUICK DELIVERY
for industrial and household drives
Scientifically constructed for high transmitting efficiency and enduring dependability. You'll profit by selling these quality belts. Carry an assortment for refrigerators and washing machines.
THE ROCKWOOD MFG. CO.
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INDIANAPOLIS, INDIANA

Delta Mfg. Co., Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Porter-Cable-Hutchinson Corp., Syracuse.
Speedway Manufacturing Co., Cicero, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Benches, Work

Angle Steel Stool Co., Plainwell, Mich.
Aurora Equipment Co., Aurora, Ill.
Axelson Mfg. Co., Ltd., Los Angeles, Calif.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill. (All steel and wood steel)
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Toles, W. C., Co., Woodstock, Ill.

Benders, Angle

Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Benders, Bar

Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Benders, Conduit and Pipe

American Pipe Tool Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Gears and Forgings, Inc., Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Hollands Mfg. Co., Erie, Pa.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Lidseen, Gustave, Inc., Chicago, Ill.
Martin, H. P., & Sons, Owensboro, Ky.
Noyes, B. B., Co., Greenfield, Mass.
Parker Appliance Co., The, Cleveland, O. (Copper tube benders)
Sampson Tool Co., New York, N. Y.
Silvey Pipe Bender Co., Kansas City, Mo.
Skinner, M. B., Co., South Bend, Ind.
Tallman Manufacturing Co., Shelbyville, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Watson-Stillman Co., The, Roselle, N. J.

Benders, Rail

Aldon Co., The, Chicago, Ill.
Blackhawk Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Dudgeon, Richard, Inc., New York, N. Y. (Hydraulic)
Excelsior Tool and Machine Co., East St. Louis, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Benders, Tire

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Hays Manufacturing Co., Erie, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.

Bending Machines, Pipe

(See "Machines, Bending, Pipe")

Bends and Coils, Pipe

Brunswick-Kroeschell Co., New Brunswick, N. J.
Buffalo Forge Co., Buffalo, N. Y.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Chicago Nipple Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur & Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Keystone Boiler & Foundry Co., Landisville, Pa.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
Midwest Piping & Supply Co., St. Louis, Mo.
Mitchell, W. K., & Co., Inc., Philadelphia.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Pancoast, Henry B., Co., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, Ohio. (Copper tube)
Reading Iron Co., Philadelphia, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

Bends, Return

Acheson Manufacturing Co., Rankin, Pa. (Brass)
Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Harris, Arthur, & Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lansdale Nipple Co., Lansdale. Pa.
Malleable Iron Fittings Co., Branford, Conn.
Northwest Lead Co.. Seattle, Wash.
Parker Appliance Co., The, Cleveland, Ohio. (Copper tube)
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

Bevels

Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Bibbs

Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Empire Brass Mfg. Co., The, Cleveland, O.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Landers, Frary & Clark, New Britain, Conn.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Munn Brass Works, Rochester, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Sherman, H. B.. Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Binders, Load

Advance Car Mover Co., Inc., Appleton, Wis.
Atkins, E. C., & Co., Indianapolis, Ind.
Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.

Binders, Loose Leaf Catalog

Dietzgen, Eugene, Co., Chicago, Ill.
Heinn Co., Milwaukee, Wis.
Master-Craft Corp.. Kalamazoo, Mich.
Remington Rand, Inc., Buffalo, N. Y.

Bin Labels

(See "Labels, Bin")

Bins, Storage, Steel

Angle Steel Stool Co., Plainwell, Mich.
Art Metal Construction Co., Jamestown, N. Y.
Beaumont, R. H., Co., Philadelphia, Pa.
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Edwards Mfg. Co., The, Cincinnati, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Heller, W. C., & Co., Montpelier, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

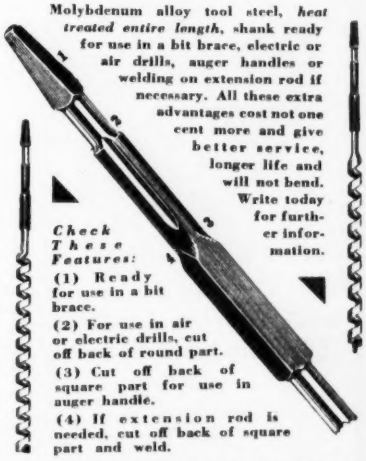
Bits, Auger

Crescent Tool Co., Jamestown, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Ingersoll-Rand Co., New York, N. Y.
Irwin Auger Bit Co., Wilmington, Ohio.
Millers Falls Co., Greenfield, Mass.
Sandvik Saw & Tool Corp., Minneapolis.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.

Bits, Bonding

Alvord-Polk Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Whitman and Barnes, Inc., Detroit, Mich.

IRWIN'S IMPROVED SHIP AUGER WITH 4-WAY SHANK



Molybdenum alloy tool steel, *heat treated entire length*, shank ready for use in a bit brace, electric or air drills, auger handles or welding on extension rod if necessary. All these extra advantages cost not one cent more and give better service, longer life and will not bend. Write today for further information.

Check These Features:

(1) Ready for use in a bit brace.

(2) For use in air or electric drills, cut off back of round part.

(3) Cut off back of square part for use in auger handle.

(4) If extension rod is needed, cut off back of square part and weld.

THE IRWIN AUGER BIT COMPANY
Wilmington, Ohio

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• IRWIN SELLS THROUGH WHOLESALE DISTRIBUTORS ONLY

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Ideal Commutator Dresser Co., Sycamore, Ill. (Joist and rafter)
Irwin Auger Bit Co., Wilmington, Ohio.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.

Bits, Countersink

American Swiss File & Tool Co., Elizabeth, N. J.
Butterfield & Co. (Division Union Twist Drill Co.), Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Forest City Bit & Tool Co., Rockford, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Latrobe Tool Co., Latrobe, Pa.
Millers Falls Co., Greenfield, Mass.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

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Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.

Bits, Expansive

Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Lubriplate Corp., New York, N. Y.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.

Bits, Gimlet

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Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Bits, Mining Machine

American Chain Co., Inc., Bridgeport, Conn.
Ingersoll-Rand Co., New York, N. Y.
Leetonia Tool Co., The, Leetonia, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.

Bits, Mortising, Common and Hollow

Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Wappat, Inc., Pittsburgh, Pa.

Bits, Router

Forest City Bit & Tool Co., Rockford, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, Ohio.
Latrobe Tool Co., Latrobe, Pa.
Orum, S. R. M., Inc., Philadelphia, Pa.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.
Wappat, Inc., Pittsburgh, Pa.

Bits and Shanks, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Hoe, R., & Co., Inc., Bronx, New York.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Bits, Screwdriver

(See "Screwdriver Bits")

Bits, Tool Holder

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Frasse, Peter A., & Co., Inc., New York.
Heller Bros. Co., Newark, N. J.
Hubbard & Co., Pittsburgh, Pa.
Latrobe Tool Co., Latrobe, Pa.
Ludlum Steel Co., Watervliet, N. Y.
Marcy Tool Works, Inc., Putnam, Conn.
Ryerson, Joseph T., & Son, Chicago, Ill.
Simonds Saw and Steel Co., Fitchburg, Mass.
Vincent Steel Process Co., Detroit, Mich.
Williams, J. H., & Co., New York, N. Y.

Blacksmiths' Tools

(See "Tools, Blacksmiths'" or specific item desired.)

Blades, Saw

(See "Saws")

Blades, Shear

Atkins, E. C., and Co., Indianapolis, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Covel Hanchett Co., Big Rapids, Mich.
Cowles Tool Co., Cleveland, Ohio.
Detroit Edge Tool Works, Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
G. D. S. Shearing & Punching Machine Co., Inc., New York, N. Y.
Gundlach, T. J., Machine Co., Belleville, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Niagara Machine & Tool Works, Buffalo.
Ohio Knife Co., The, Cincinnati, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.
Simonds Saw and Steel Co., Fitchburg, Mass.

Blankets, Camp

Boston Woven Hose & Rubber Co., Cambridge, Mass.

Blankets, Mine, Rubber

Cross Rubber Co., Sharon, Pa.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Mine Safety Appliances Co., Pittsburgh.
New York Belting & Packing Co., Passaic, N. J.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Republic Rubber Co., The, Youngstown, Ohio.

Blankets, Rescue, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Holcomb Safety Garments Co., Chicago.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.

Blanks, Gear

Ampco Metals, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio (Cast bronze)
Bearium Metals Corporation, Rochester.
Bethlehem Steel Co., Bethlehem, Pa.
Bond, Charles, Co., Philadelphia, Pa.
Bonney Forge & Tool Works, Allentown, Pa.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Columbus Anvil & Forging Co., The, Columbus, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Detroit Screw Works, Detroit, Mich.
Detroit Stamping Co., Detroit, Mich.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee. Wis.
Foote Bros. Gear & Machine Co., Chicago.
Frasse, Peter A., & Co., Inc., New York.
Gears and Forgings, Inc., Cleveland, Ohio.
Great Lakes Chemical Works, Detroit.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
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Link-Belt Co., Chicago, Ill.
Massachusetts Machine Shop, Inc., Boston, Mass.
Moloney Belting Co., Chicago, Ill.
Mueller Brass Co., Port Huron, Mich.
Noyes, B. B., Co., Greenfield, Mass.
Philadelphia Gear Works, Philadelphia.
Pyott Foundry & Machine Co., Chicago, Ill.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith, Winfield H., Inc., Springville, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Rawhide & Belting Co., Milwaukee, Wis.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., The, Cleveland, Ohio. (Screw blanks only)
Detroit Nut Co., Inc., Detroit, Mich. (Nut blanks only)
Detroit Screw Works, Detroit, Mich.
Gears and Forgings, Inc., Cleveland, Ohio.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Williams, J. H., & Co., New York, N. Y.

Blasting Machines

(See "Machines, Blasting")

Blasts, Sand

(See "Sand Blast Machines and Equipment")

Blocks, Awning

Ford Chain Block Co., Philadelphia, Pa.
Liggnum-Vitae Woodturning Co., Inc., Jersey City, N. J.
Perkins Marine Lamp Corp, Brooklyn.
Sargent & Co., New Haven, Conn.

Blocks, Chain

American Hoist & Derrick Co., St. Paul.
Boston & Lockport Block Co., East Boston, Mass.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corporation), New York, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Round, David, and Son, Cleveland, Ohio.
Speidel Elevator Corp., Reading, Pa.
Union Manufacturing Co., New Britain, Conn.
Upson-Walton Co., The, Cleveland, Ohio.
Wright Mfg. Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Blocks, Dolly

American Hoist & Derrick Co., St. Paul.
Ingersoll-Rand Co., New York, N. Y.
Plomb Tool Co., Los Angeles, Calif.
LaFrancis, A., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

Blocks, Drill

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Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.

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Dodge Manufacturing Corp., Mishawaka, Ind.
Johns-Manville Sales Corp., New York.

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Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.

Blocks, Pillow

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond Foundry and Machine Co., Manheim, Pa. (Including pedestal type)
Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Shafer Bearing Corp., Chicago, Ill.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Blocks, Snatch

American Hoist & Derrick Co., St. Paul.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston & Lockport Block Co., East Boston.
Edwards, H. D., & Co., Detroit. (Steel)
Hartz, H. V., Co., The, Cleveland, Ohio.
Leschen, A., & Sons Rope Co., St. Louis.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Blocks, Swage

American Foundry & Mfg. Co., St. Louis.
Noyes, B. B., Co., Greenfield, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Blocks, Tackle or Pulley

American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Edwards, H. D., & Co., Detroit, Mich. (Steel tackle blocks)
Hartz, H. V., Co., The, Cleveland, Ohio.
Klein, M., & Son, Chicago, Ill.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Leschen, A., & Sons Rope Co., St. Louis.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Michigan Engine Valve Co., Detroit, Mich.
Perkins Marine Lamp Corp., Brooklyn.
Roebling's, John A., Sons Co., Trenton, N. J.
Sargent & Co., New Haven, Conn.
Starline, Inc., Harvard, Ill.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Blocks and Clamps, "V"

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Brown & Sharpe Mfg. Co., Providence, R. I.
Standard Shop Equipment Co., Philadelphia, Pa.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

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American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Boekel, Wm., & Co., Philadelphia, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Dockson, C. H., Co., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Linde Air Products, Inc., The, New York.
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Huyette, Paul B., Co., Inc., Philadelphia.
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Monarch Soot Remover Co., Inc., Boston.
Murray, William H., Richmond Hill, New York, N. Y.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Self Cleaning Strainer Co., Chicago, Ill.

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Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
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General Electric Co., Schenectady, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Ryerson, Joseph T., & Son, Inc., Chicago.
Skilsaw, Inc., Chicago, Ill.
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Electric Blower Co., Boston, Mass.
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Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis, Minn.
Electric Blower Co., Boston, Mass.
Leiman Bros., Inc., Newark, N. J.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
R. S. Products Corp., Philadelphia, Pa.
Sturtevant, B. F., Co., Boston, Mass.

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Champion Blower & Forge Co., Lancaster, Pa.
Electric Blower Co., Boston, Mass.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Blowers, Heating

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Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
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Davison Combustion Co., Pittsburgh, Pa.
Electric Blower Co., Boston, Mass.
Ideal Commutator Dresser Co., Sycamore, Ill. (Portable hand)
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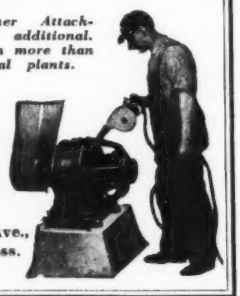

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Davison Combustion Co., Pittsburgh, Pa.
Diehl Mfg. Co., Elizabethport, N. J.
Leiman Bros., Inc., Newark, N. J.
Miller Tool & Mfg. Co., Inc., Detroit.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corp., Los Angeles, Calif.

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Asch & Company, Inc., New York, N. Y. (For car drying)
Autovent Fan & Blower Co., Chicago, Ill.
Baker-Hansen Mfg. Co., Alameda, Calif.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Davison Combustion Co., Pittsburgh, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
Diehl Mfg. Co., Elizabethport, N. J.
Ingersoll-Rand Co., New York, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Leiman Bros., Inc., Newark, N. J.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Ruemelin Mfg. Co., Milwaukee, Wis.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corp., Los Angeles, Calif.

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(See "Collectors, Exhausters [or Blower Systems], for Shavings and Dust")

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Hennebohle, Frank, Chicago, Ill.
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Ingersoll-Rand Co., New York, N. Y.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Monarch Soot Remover Co., Inc., Boston.
Murray, William H., Richmond Hill, New York, N. Y.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp), Connersville, Ind.

Blowers, Ventilating

American Blower Corp., Detroit, Mich.
American Propeller Co., The, South Bend, Ind.
Autovent Fan & Blower Co., Chicago, Ill.
Bendix Products Corporation, South Bend, Ind.
Binks Manufacturing Co., Chicago, Ill.
Bishop & Babcock Sales Co., Cleveland.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Coppus Engineering Corp., Worcester, Mass.
Diehl Mfg. Co., Elizabethport, N. J.
Electric Blower Co., Boston, Mass.
Hartzell Propeller Fan Co., Piqua, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Meier Electric & Machine Co., The, Indianapolis, Ind.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Schutte & Koerting Co., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston.

Board, Stencil, Oiled

Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.

Boards, Asbestos

(See "Millboard, Asbestos")

Boards, Fibre

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Continental-Diamond Fibre Co., Newark, Del.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Union Fibre Sales Co., Winona, Minn.

Boiler Feeders, Water

(See "Feeders, Boiler, Water")

Boiler Mountings

(See "Plugs, Fusible," "Columns, Water," "Cocks, Gauge," "Valves, Blowoff," "Blowers, Soot," etc.)

Boiler Nozzles

(See "Nozzles, Boiler")

Boiler Tubes

(See "Tubes, Boiler")

Boilers, Range

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Morley Co., La Porte, Ind.
Crane Co., Chicago, Ill.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Wheeling Steel Corp., Wheeling, W. Va.

Bolt and Cap Screw Threading Machines

(See "Machines, Threading, Bolt and Cap Screw")

Bolt, Nut and Rivet Machinery

(See "Bulldozers," "Clippers—Bolt, Rivet and Wire," "Dies," "Pacers, Nut," "Headers and Reheaders, Bolt," "Heads, Die," "Machines, Tapping," etc.)

Bolts, Barrel

California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lewis Bolt & Nut Co., Minneapolis, Minn.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Peck, Stow & Wilcox Co., Southington, Conn.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Blank

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Boiler Patch

Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.

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Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester.
Ryerson, Joseph T., & Son, Chicago, Ill.

Bolts, Boiler Stay

Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Flannery Bolt Co., Pittsburgh, Pa.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts—Brass, Bronze and Copper

Acheson Manufacturing Co., Rankin, Pa.
American Screw Co., Providence, R. I. (Brass only)
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Bolt & Screw Co., The, Cleveland, O.
Brooks, M. S., & Sons, Inc., Chester, Conn.
California Screw Co., San Francisco, Calif.
Chicago Screw Co,, The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Wood Screw Co., New Bedford, Mass.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Harris, Arthur, & Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Messmer Brass Co., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
National Screw & Mfg. Co., The, Cleveland.
Pheoll Mfg. Co., Chicago, Ill.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rochester Machine Screw Co., Rochester, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Stanley Works, The, New Britain, Conn.
U. S. Indestructible Gasket Co., Brooklyn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Bridge and Roof

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Carriage

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., The, Cleveland.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill. (Brass)
Helz & Helz, Inc., Brooklyn, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Pheoll Mfg. Co., Chicago, Ill.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rockford Bolt & Steel Co., Rockford, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Co., The, Cleveland.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wasmer Bolt & Nut Co., The, Cleveland, O.

Bolts, Chain

Atlas Bolt & Screw Co.. The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Detroit Screw Works, Detroit, Mich.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland.
Peck, Stow & Wilcox Co., Southington, Conn.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Superior Screw & Bolt Co., The, Cleveland.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Western Products, Inc., Newcastle, Ind.

Bolts, Coach and Lag

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Bolts, Collar

Atlas Bolt & Screw Co., The, Cleveland.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Haskell, Wm., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Rochester Machine Screw Co., Rochester.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Connecting Rod

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Monarch Cap Screw & Mfg. Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Iron & Steel Co., Youngstown, O.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

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Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Expansion Bolt Co., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Malleable Iron Works, Marion, Ind.
Milton Manufacturing Co., The, Milton, Pa.
National Lead Co., New York, N. Y.
National Screw & Mfg. Co., The, Cleveland.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Rawplug Co., Inc., New York, N. Y.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Bolt & Steel Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Countersunk

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Bolt & Steel Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Coupling

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Huron Industries, Inc., Alpena, Mich.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.

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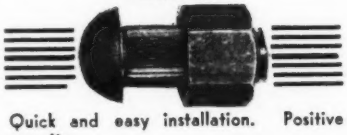

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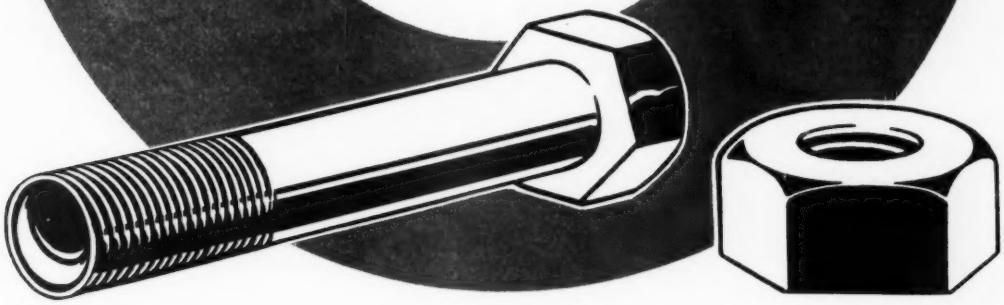

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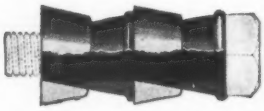

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Rochester Machine Screw Co., Rochester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Drift

Atlas Bolt & Screw Co., The, Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Maryland Bolt & Nut Co., The, Baltimore.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Elevator Bucket

Atlas Bolt & Screw Co., The, Cleveland, O.
American Screw Co., Providence, R. I.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Jeffrey Manufacturing Co., Columbus, O.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Link-Belt Co., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland.
Republic Steel Corp., Youngstown, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Bolts, Expansion

Arro Expansion Bolt Co., Marion, Ohio.
Arguto Oilless Bearing Co., Philadelphia.
Brohard Co., The, Philadelphia, Pa.
California Screw Co., San Francisco, Calif.
Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Kempton Manufacturing Corp., The, New York, N. Y.
Modern Mfg. Co., The, Cleveland, Ohio.
National Lead Co., New York, N. Y.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Rawlplug Co., Inc., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Ryerson, Joseph T., & Son, Inc., Chicago.
U. S. Expansion Bolt Co., New York, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts—Eye, Hook and Ring

Armstrong Bros. Tool Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Cal.
Chain Products Co., The, Cleveland, Ohio.
Chicago Expansion Bolt Co., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Laughlin, Thomas Co., Portland, Maine.
Marion Machine Foundry & Supply Co., Marion, Ind.
Milton Manufacturing Co., The, Milton, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Youngstown, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Rochester Machine Screw Co., Rochester.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Washburn Co., The, Worcester, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.
Williams, J. H., & Co., New York, N. Y.

Bolts, Flexible

California Screw Co., San Francisco, Cal.
Flannery Bolt Co., Pittsburgh, Pa.
Maryland Bolt & Nut Co., The, Baltimore.

Bolts, Foot

Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Cal.
Gears and Forgings, Inc., Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Starline, Inc., Harvard, Ill.

Bolts, Galvanized

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Gaskell, Wm., & Son, Inc., Brooklyn, N. Y.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Bolts, Hanger

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Champion Manufacturing Co., Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Wood Screw Co., New Bedford, Mass.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.

RAWL-DRIVES

A ONE-PIECE Expansion Bolt. For attaching anything to masonry. Drives like a nail. Holds more than a bolt.

This new holding device is entirely different — it's really revolutionary in construction, ease of installation, and holding power.

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Our helpful Jobbers' Merchandising Plan will interest you—write for complete information.

THE RAWLPLUG COMPANY, INC.
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Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
Modern Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Youngstown, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co. Port Chester, N. Y.
Sargent & Co., New Haven, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Wood's. T. B., Sons Co., Chambersburg, Pa.

Bolts, Lag

(See "Bolts, Coach and Lag")

Bolts, Machine

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co.,The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Cal.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Milton Manufacturing Co., The. Milton, Pa.
Mockbee, C. M., Co., Cincinnati, Ohio. (Large size and special)
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rochester Machine Screw Co., Rochester.
Rockford Bolt & Steel Co., Rockford, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Co., The, Cleveland.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wasmer Bolt & Nut Co., The, Cleveland.

Bolts, Monel Metal

Atlas Bolt & Screw Co., The, Cleveland, Ohio. (Also monel screws)
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
International Nickel Co., Inc., The, New York, N. Y.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Rochester Machine Screw Co., Rochester.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.

Bolts, Planer Head

Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Covel-Hanchett Co., Big Rapids, Mich.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Bolt & Steel Co., Rockford, Ill.
Sheldon Machine Co., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Bolts, Plow

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co, The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Republic Steel Corp., Youngstown, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Co., The, Cleveland.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Shackle

Acme Machine Products Co., Muncie, Ind.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Bolts—Sink, Stove and Tire

American Screw Co., Providence, R. I.
Arguto Oilless Bearing Co., Philadelphia.
Atlas Bolt & Screw Co., The, Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Continental Wood Screw Co., New Bedford, Mass.
Eagle Lock Co., Terryville, Conn.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Youngstown, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Superior Screw & Bolt Co., The, Cleveland.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Spring

Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Ferry Cap & Set Screw Co., Cleveland, O.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Stay

(See "Stay Bolts")

Bolts, Step

Atlas Bolt & Screw Co., The, Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
National Screw & Mfg. Co., The, Cleveland.
Republic Steel Corp., Youngstown, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Superior Screw & Bolt Co., The, Cleveland.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Stripper

(See "Screws, Shoulder, Socket Head")

Bolts, Stud

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Crane Co., Chicago, Ill.
Everitt Co., The, Boston, Mass.
Gaskell, Wm., & Son, Inc., Brooklyn, N. Y.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Marion Machine Foundry & Supply Co., Marion, Ind.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.

Bolts, Tap

Armstrong Manufacturing Co., Bridgeport, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Radiator Corp., Johnstown, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Toggle

Arguto Oilless Bearing Co., Philadelphia.
Arro Expansion Bolt Co., Marion, Ohio.
California Screw Co., San Francisco, Calif.
Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Modern Mfg. Co., The, Cleveland, Ohio.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Philadelphia Expansion Bolt Co., Philadelphia, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
U. S. Expansion Bolt Co., New York, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Bolts, Track

Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Marion Machine Foundry & Supply Co., Marion, Ind.
Milton Manufacturing Co., The, Milton, Pa.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Boosters, Gas and Air Pressure

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Coppus Engineering Corp., Worcester, Mass.

General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.
Torchweld Equipment Co., Chicago, Ill.

Boots, Elevator

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manufacturers Equipment Co., The, Dayton, Ohio.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Boots, Rubber

Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Ohio Rubber Co., The, Cleveland, Ohio.
Rockford Drilling Machine Co., Rockford, Ill.

Boring Machines

(See "Machines, Boring")

Boring Tools

(See "Tools, Boring")

Box Strapping

(See "Strapping, Box")

Boxes, Eccentric and Thrust

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Jeffrey Manufacturing Co., Columbus, O.
Link-Belt Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Boxes, Hanger, Replace

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hyatt Roller Bearing Co., Newark, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Rock Island Mfg. Co., Rock Island, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Boxes and Barrels, Hard Fibre

Continental-Diamond Fibre Co., Newark, Del.
Fibre Specialty Mfg. Co., Division National Vulcanized Fibre Co., Kennett Square, Pa.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Boxes, Journal

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Bearium Metals Corporation, Rochester, N. Y.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Great Lakes Chemical Works, Detroit.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hyatt Roller Bearing Co., Newark, N. J.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Messmer Brass Co., St. Louis, Mo.
Miller Machine Works, Springs, Pa.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Rowe, Henry, Mfg. Co., Newaygo, Mich. (Wood)
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Boxes, Mitre

Diamond Iron Works, Inc., Minneapolis.
Economy Manufacturing Co., Philadelphia.
Goodell-Pratt Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Boxes, Mortar, Steel

Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Leach Co., Oshkosh, Wis.
Littleford Bros., Cincinnati, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Red Star Products Corp., Cleveland, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Truscon Steel Co., Youngstown, Ohio.

Boxes, Oily Waste

(See "Cans or Boxes, Oily Waste")

Boxes, Shop or Tote

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Blackhawk Mfg. Co., Milwaukee, Wis.
Continental-Diamond Fibre Co., Newark, Del.
Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Fibre Specialty Mfg. Co., Division National Vulcanized Fibre Co., Kennett Square, Pa.
Geuder, Paeschke & Frey Co., Milwaukee.
Kennedy Manufacturing Co., Van Wert, O.
Lewis, G. B., Co., Watertown, Wis.
Littleford Bros., Cincinnati, Ohio.
Luptons, David, Sons Co., Philadelphia, Pa.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Nutting Truck Co., Faribault, Minn.
Plomb Tool Co., Los Angeles, Calif.
Pollard Bros. Mfg. Co., Chicago, Ill. (Stacking)
Rochester Can Co., Rochester, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Truscon Steel Co., Youngstown, Ohio.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Boxes, Sprue

American Foundry & Mfg. Co., St. Louis.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Boxes, Street Washer

Clow, James B., & Sons Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.

Boxes, Stuffing

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Fisher Governor Co., The, Marshalltown, Iowa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
List, E. J., Mfg. Co., Havana, Ill.
Perkins Marine Lamp Corp., Brooklyn.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Boxes, Take-up

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Boxes, Tool, Engineers' Kit

All-Steel-Equip Co., Inc., Aurora, Ill.
Aurora Steel Products Co., Aurora, Ill.
Berger Manufacturing Co., The (Division of Republic Steel Corporation), Canton. O.
Blackhawk Mfg. Co., Milwaukee, Wis.
Gerstner, H., & Sons, Dayton, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Kennedy Manufacturing Co., Van Wert, O.
Lyon Metal Products, Inc., Aurora, Ill.
Outing Manufacturing Co., Elkhart, Ind.
Plomb Tool Co., Los Angeles, Calif.
Pollard Bros. Mfg. Co., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Boxes, Tool, Fireproof

Blackhawk Mfg. Co., Milwaukee, Wis.
Detroit Metal Spinning Co., Inc., Detroit. Mich.
Littleford Bros., Cincinnati, Ohio.
Lyon Metal Products, Inc., Aurora, Ill.
Nye Tool & Machine Works, The, Chicago.
Outing Manufacturing Co., Elkhart, Ind.
Stevens, Walden, Inc., Worcester, Mass.
Truscon Steel Co., Youngstown, Ohio.

Boxes, Valve

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
S. E. T. Valve and Hydrant Co., New York.
Vogt Brothers Mfg. Co., Louisville, Ky.

Braces, Bit

Bernz, Otto Co., Rochester. N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Phiadelphia, Pa.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Stanley Rule & Level Plant, New Britain, Conn.

Braces, Bit, Angular and Corner

Billings & Spencer Co., The, Hartford, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Phiadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.

Braces, Rail

Bethlehem Steel Co., Bethlehem, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.

Braces, Trench and Timber

Channon, J. H., Corp., Chicago, Ill.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Templeton, Kenly & Co., Chicago.

Brackets, Fire Axe

Allen, W. D., Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Perkins Marine Lamp Corp., Brooklyn.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Brackets, Fire Extinguisher Pump and Fire Bucket

Allen, W. D., Mfg. Co., Chicago, Ill.
American-La France and Foamite Corp., Elmira, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

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Brackets, I-Beam

(See "Clamps and Brackets, Beam or Girder")

Brackets and Supports, Pipe

Brunswick-Kroeschell Co., New Brunswick, N. J.
Clow, James B., & Sons, Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Modern Mfg. Co., The, Cleveland, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio. (Supports)
Walworth Co., New York, N. Y.

Brackets, Scaffolding

Patent Scaffolding Co., The, Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Brackets, Shelf

Atlas-Ansonia Co., New Haven, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Heller, W. C., & Co., Montpelier, Ohio.
Market Forge Co., Everett, Mass.
Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.

Brackets, Wall, Power Transmission

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Roversford Foundry & Machine Co., Inc., Roversford, Pa.
S.K.F. Industries, Inc., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Brads, Wire

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.

Brakes, Bending, Steel

Farrel-Birmingham Co., Inc., Ansonia, Conn.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

Brakes, Press

Farrel-Birmingham Co., Inc., Ansonia, Conn.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Miley, L. J., Co., Inc., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

Brakes, Truck, Hand

Advance Car Mover Co., Inc., Appleton, Wis.
Miley, L. J., Co., Inc., Chicago, Ill.
Nutting Truck Co., Faribault, Minn.
Safety Truck Brake Co., Inc., Appleton, Wis.

Brands, Burning

Bernz, Otto, Co., Inc., Rochester, N. Y. (Gas and kerosene)
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Electric Soldering Iron Co., New York.
Everhot Mfg. Co., Maywood, Ill.
Hexagon Electric Appliance Corp., Roselle Park, N. J.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.

Brass Rods, Bars and Sheets

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Consolidated Brass Co., Detroit, Mich.
Consolidated Metal Corporation, Detroit, Mich.
Great Lakes Chemical Works, Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich. (Rods and bars)
National Copper & Smelting Co., Cleveland, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Brattice Cloth

(See "Cloth, Brattice")

Brazing Compounds

(See "Compounds and Fluxes, Brazing")

Brazing Machines

(See "Machines, Brazing, Kerosene and Gasoline")

Brazing Tools

(See "Tools, Brazing")

Breakers, Pavement and Rock

Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland, Ohio. (Pavement only)
Ingersoll-Rand Co., New York, N. Y.
Vulcan Tool Mfg. Co., Quincy, Mass.

Bricklayers' Sets

(See "Sets, Bricklayers' ")

Bricks and Sticks, Abrasive

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp., Troy, N. Y.
Carborundum Co., The, Niagara Falls, N.Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Harrison & Co., Haverhill, Mass.
Mall Tool Co., Chicago, Ill.
Norton Pike Co., Pike, N. H.
Peninsular Grinding Wheel Co., Detroit, Mich.
Vitrified Wheel Co., Westfield, Mass.

Bricks, Rubbing

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp., Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Norton Pike Co., Pike, N. H.
Peninsular Grinding Wheel Co., Detroit, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.

Broaches

Alvord-Polk Tool Co., Millersburg, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Union Twist Drill Co., Athol, Mass.

Broaching Machines

(See "Machines, Broaching")

Bronze Bars, Cored and Solid

(See "Bars, Bronze, Cored and Solid")

Bronze, Castings or Ingots, Aluminum, Manganese and Phosphor

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bearium Metals Corporation, Rochester, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bristol Brass Corp., The, Bristol, Conn. (Phosphor only)
Bunting Brass & Bronze Co., Toledo, Ohio.
Consolidated Metal Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Fisher Governor Co., The, Marshalltown, Iowa.
Fredericksen Co., Saginaw, Mich.
Great Lakes Chemical Works, Detroit, Mich.
Johnson Bronze Co., New Castle, Pa.
Messmer Brass Co., St. Louis, Mo.
Moccasin Bushing Co., Chattanooga, Tenn.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.

Bronze Rods, Bars and Sheets, Rolled

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
Bearium Metals Corporation, Rochester, N. Y.
Bristol Brass Corp., The, Bristol, Conn.
Buckeye Brass & Mfg. Co., The, Cleveland, Ohio.
Bunting Brass & Bronze Co., Toledo, Ohio.
Consolidated Metal Corp., Detroit, Mich.
Great Lakes Chemical Works, Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Linde Air Products, The, New York, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.

Brooms and Brushes, Factory or Warehouse

Deshler Broom Factory, The, Deshler, Neb.
Gerts, Lumbard & Co., Chicago, Ill.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.

For a well rounded line of Industrial Brooms and Brushes, sell your trade the nationally known

CAPITAL "Red-Cap"

Sold consistently for 45 years through industrial supply houses. A leader in establishing high standards of quality in brooms and brushes, and advancing the cause of supply house distribution.

Ask for Catalog

INDIANAPOLIS BRUSH & BROOM MFG. CO.
126 Brush Street
Indianapolis Indiana

Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Merkle Broom Co., Paris, Ill.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Southwestern Broom Mfg. Co., The, Evansville, Ind.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms, Fibre, Upright

Osborn Manufacturing Co., The, Cleveland, Ohio.

Brooms, Hide

Deshler Broom Factory, The, Deshler, Neb.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph Co., The, Portland, Ind.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Warner, W. E., & Co., New York, N. Y.

Brooms, Push, Fibre or Wire

Gerts, Lumbard & Co., Chicago, Ill.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Littleford Bros., Cincinnati, Ohio.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms or Brushes, Track or Switch

Deshler Broom Factory, The, Deshler, Neb.
Hoosier Broom Manufacturing Co., Indianapolis, Ind.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland, Ohio.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Sullivan Brush Co., Terre Haute, Ind.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brooms, Whisk

Deshler Broom Factory,. The, Deshler, Neb.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Merkle Broom Co., Paris, Ill.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Osborn Manufacturing Co., The, Cleveland.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Southwestern Broom Mfg. Co., The, Evansville, Ind.

Brooms, Wire

Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Littleford Bros., Cincinnati, Ohio.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Acid or Lime, Masons'

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Linzer, David, & Sons, New York, N. Y.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes and Belting, Sifter Brush

(See "Sifter Brush Belting and Brushes")

Brushes, Bench and Counter

Deshler Broom Factory, The, Deshler, Neb.
Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Buffing

Elder & Jenks, Philadelphia, Pa.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Key Boiler Equipment Co., E. St. Louis, Ill.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., Cincinnati, Ohio.
Warner, W. E., & Co., New York, N. Y.

Brushes, Calcimine

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Carbon Removing

Black & Decker Mfg. Co., The, Towson, Md.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Casting

(See "Brushes, Foundry")

Brushes, Closet Bowl

Gerts, Lumbard & Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.

Brushes, Deck Scrubbing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.

Brushes, Factory

(See "Brooms and Brushes, Factory or Warehouse")

Brushes and Cards, File Cleaning

Cincinnati Tool Co., Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Nicholson File Co., Providence, R. I.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes, Floor

Gerts, Lumbard & Co., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Mason Brush Works, Worcester, Mass.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Floor Polishing

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.

(Continued on Page 45)

Manufacturers' Street Addresses will be found in the "Names and Addresses" Section

UMI

TRADE MILWAUKEE MARK

WIRE WHEEL AND END BRUSHES

For Cleaning, Buffing, Polishing, Grinding, etc.

"MONO-BILT"
Interchangeable Centers

"Mono-Bilt" Brush

"Mono-Bilt" Center

"Mono-Bilt" Brushes are made of specially drawn, thoroly crimped wire assembled under heavy pressure, and intermingled into a brush of exceptional strength, durability and effectiveness, which gives splendid service when subjected to severe usage.

"Mono-Bilt" Brushes in 6, 8, 10 and 12-inch sizes are made with a standard 2-inch opening. The 4-inch size with 1-inch opening.

Specially designed **"Mono-Bilt"** Stamped Steel Centers interchangeable in 6, 8, 10 and 12-inch brushes, are made with arbor holes ranging from ½ to 1½ inches.

"Mono-Bilt" Brushes enable the distributor to supply from stock, a brush that will fit practically any standard arbor.

Specifications

Diam. of brush	Width of face	Diam. of face plates	W. & M. gauge wire	Weight each	List each
12 in.	2 in.	5⅝ in.	33	7 lbs.	$8.00
10 in.	2 in.	5⅝ in.	33	5⅝ lbs.	6.00
8 in.	1¼ in.	4 in.	33	2¾ lbs.	4.00
6 in.	1¼ in.	4 in.	33	1⅞ lbs.	3.00
4 in.	1 in.	2¼ in.	33	1 lb.	2.00

List price includes one pair of "Mono-Bilt" Centers.

Extra pairs of Centers	List per pair
For 6, 8, 10 and 12-inch Brushes	$0.20
For 4-inch Brushes	.15

"Mono-Bilt" Interchangeable Centers for 6-in and larger Brushes, are regularly made with ½, ⅝, ¾, ⅞, 1, 1¼ and 1½-inch arbor holes.

"Mono-Bilt" Interchangeable Centers for 4-inch Brushes are made with either ⅜-inch or ½-inch arbor holes.

"Mono-Bilt" Brushes will be made of coarser or finer wire than No. 33, if desired.

Packed in individual cartons.

When ordering, please state size of arbor hole

"STEEL CLAD" WIRE WHEEL BRUSHES
Steel Center

Each Brush is a Complete Unit

Can Be Mounted Directly on Shaft

"Steel Clad" Brushes eliminate the necessity of hubs. They can be used singly, or in groups of any quantity desired.

No.	Diam.	Width of face	W. & M. wire gauge	Weight each	List each
130	15 in.	½ in.	30	1¾ lbs.	$1.40
131	12 in.	½ in.	30	1¼ lbs.	1.25
132	10 in.	½ in.	30	1 lb.	1.05
133	8 in.	½ in.	33	¾ lb.	.80
135	6 in.	⅜ in.	33	½ lb.	.65
136	5 in.	⅜ in.	33	⅜ lb.	.60
137	4 in.	⅜ in.	33	¼ lb.	.55
138	3 in.	⅜ in.	33	⅛ lb.	.50

When ordering, please state size of arbor hole.

STEEL WIRE CUP BRUSH

The wire is coarse and heavy to withstand the severe strain to which brush is subjected. This brush is especially designed for removing old paint, scale, rust, etc., from large metal surfaces.

Length of wire 1⅝ in.

Diameter of brushing surface 6 in.

No.	Weight each	List each
3082	2 lbs.	$4.50

When ordering, please state size of arbor hole.

CARBON REMOVING BRUSH

No. 3081—Diameter of Brush part 1-inch; ¼-inch diameter steel shank. Length of wire 1 1/16 inches. Length overall 3¾ inches. Weight, each, ½ lb. List, each...$1.50

The "Width of Face" in specifications of Wire Wheel Brushes is approximate and shown for convenience only.

Any of the brushes listed above can be made of coarser or finer wire if desired.

List Prices Subject to Discount

Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

WIRE CLEANING BRUSHES

Round Steel Wire Hand Brushes

MILWAUKEE Wire Brushes are made of best quality specially tempered fine carbon steel wire. They are built to exacting standards of uniformity and rigidly inspected before leaving our factory. The blocks are well filled—wires evenly trimmed, and securely fastened in carefully selected thoroly seasoned hardwood blocks. Every brush is a carefully balanced, efficient tool.

STRAIGHT BACK—SOLID BLOCK

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1611	7x2½	6x19	1¾	108 lbs.	$48.00

For general use in removing paint, varnish, rust, grease, etc. Takes the place of sandpaper, steel wool and similar abrasives. Works faster and is more effective. Packed 1 dozen in carton.

LONG HANDLE SOLID BLOCK

Length of Brush part 6¼ inches.

No.	Rows	Length overall, inches	Length of wire, inches	Weight per gross	List per gross
1651	3x19	14	1⅛	70 lbs.	$36.00
1656	4x19	14	1⅛	100 lbs.	48.00

No. 1651 extensively used in auto repair shops and garages. No. 1656 designed for Braziers' finishing work. Packed 1 dozen in carton.

STRAIGHT HANDLE SOLID BLOCK

Length of Brush part 5 inches. Width of chiseled edge polished steel scraper 2⅞ inches.

No.	Rows	Length of wire, inches	Length overall, inches	Weight per gross	List per gross
1665	4	1½	11¼	108 lbs.	$87.00

Specially designed for removing varnish from floors, doors, etc., preparatory to refinishing. The scraper quickly removes loosened varnish, cleans thoroly and leaves a smooth surface. Packed 1 dozen in a carton.

FLAT STEEL WIRE BRUSHES

Solid Hardwood Block

Brush part 7¾x2⅝ inches.

No.	Rows	Length of wire, inches	Weight per gross	List per gross
1801	5x10	1¼	115 lbs.	$41.00
1802	5x10	1½	121 lbs.	43.50

In addition to cleaning butchers' blocks, these brushes are used for cleaning stone and brick surfaces and structural iron work.

CURVED BACK—SOLID BLOCK

No.	Inches	Rows	Length of wire, inches	Weight per gross	List per gross
1632	7⅛x1⅛	9x21	1⅛	110 lbs.	$72.00

Heavily filled brushes with rocker faces. Evenly trimmed wires. Very effective for removing varnish, paint or wax from wood or metal surfaces preparatory to refinishing. Packed 1 dozen in carton.

WIRE DUSTER SOLID BLOCK

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1661	2¾x1⅛	4	2¼	40 lbs.	$45.00

Very effective for removing dirt and other accumulations between boards in old soft wood floors. Especially adapted for use on mouldings, baseboards, etc. Popular among mechanics for brushing chips and borings from machines. Packed 1 dozen in carton.

SHOE HANDLE SOLID BLOCK

Length of Brush part 5 inches.

No.	Size of block, inches	Rows	Length of wire, inches	Weight per gross	List per gross
1646	⅝x10	2	1¼	40 lbs.	$36.00
1641	1x10	4	1⅛	60 lbs.	45.00

Especially designed for use in places inaccessible to larger and wider brushes. Also suitable for cleaning architectural iron work, figured brass, etc. No. 1641 is extensively used for brushing pipe threads, cleaning battery terminals, etc. No. 1646 packed 2 dozen in carton. No. 1641 packed 1 dozen in carton.

"REMUV-ALL"—NO. 1644

ALL METAL—FOR SHOP AND HOME USE

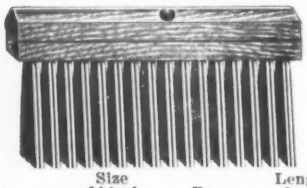
Indestructible—Sanitary—Indispensable

Fine Round Steel Wire

Length of wire	Length overall	Weight per gross	List per gross
1½ inches	5¾ inches	16 lbs.	$18.00

Unequalled for cleaning waffle irons, gas burners, drip pans, etc. Readily and easily cleans battery terminals and removes solder, chips, filings, etc. Packed 1 dozen in carton.

STREET PUSH BROOMS



WIRE PUSH BROOMS

Tempered Flat Steel Wire

No.	Size of block	Rows	Length of wire	Weight per doz.	List per doz.
1001	12x2⅜ in.	4	5 in.	28 lbs.	$13.20
1002	14x2⅜ in.	4	5 in.	33 lbs.	15.50

FIBRE PUSH BROOMS

Best Quality Genuine African Bass

Length of Stock 6 Inches

No.	Size of block	Rows	Sweep of broom	Weight per doz.	List per doz.
1211	16x3½ in.	5	22 in.	42 lbs.	$16.40

List Prices Subject to Discount

Write for General Catalog and Net Price Information

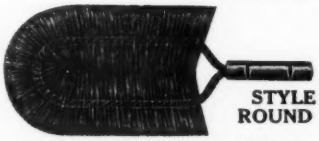
THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

BOILER, FURNACE AND SUNDRY BRUSHES



STYLE B—ROUND WIRE

No.	Brush part, inches	Weight per 100	List per 100
1903	1¾x4x5½	75 lbs.	$ 90.00

STYLE D—ROUND WIRE (Rectangular)

No.	Brush part, inches	Weight per 100	List per 100
1915	2x4x4½	50 lbs.	$ 90.00
1916	3x5x4½	62 lbs.	110.00

STYLE M—FLAT WIRE (Oval)

No.	Brush part, inches	Weight per 100	List per 100
3017	2 x3¼x4	50 lbs.	$ 48.00
3051	2 x4 x4	60 lbs.	60.00
3252	1⅜x3¼x4	37 lbs.	44.00
3253	2 x3¾x5	62 lbs.	60.00
3254	2¾x4½x6	75 lbs.	76.00
3255	2¾x6¾x7	137 lbs.	144.00

PLATERS' BRUSHES

Plain Finished Hardwood Solid Block. Wire fastened.
Length of Brush part 5½ inches. Length overall 12 inches.
Length of stock 1-inch.

Selected White Tampico

No.	Rows	Width of block	Weight per gross	List per gross
1393	3	⅞ in.	30 lbs.	$42.00
1394	4	1⅛ in.	42 lbs.	32.40

Stiff Black Chinese Bristle

No.	Rows	Width of block	Weight per gross	List per gross
2003	3	⅞ in.	31 lbs.	$66.00
2004	4	1⅛ in.	42 lbs.	84.00

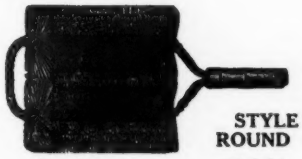
Packed 1 dozen in carton.

Plain Finished Hardwood Solid Block. Wire fastened.
Length of Brush part 4½ inches. Length overall 10 inches.
Length of stock 1-inch.

Four Rows

No.	Stock	Width of block	Weight per gross	List per gross
1380	Grey Tampico Fibre	1 in.	39 lbs.	$42.00
1381	Black Chinese Bristle	1 in.	39 lbs.	78.00

Packed 1 dozen in carton.



STYLE A—ROUND WIRE

No.	Brush part, inches	Weight per 100	List per 100
1900	1⅝x4 x4½	50 lbs.	$ 72.00
1901	2½x6 x4½	75 lbs.	100.00
1902	3½x6⅝x4½	88 lbs.	120.00

STYLE S—FLAT WIRE—SINGLE SPIRAL

No.	Length of brush part, inches	For flue sizes, inches	Weight per 100 (3" size)	List per inch diameter
1950	4½	1 to 6	50 lbs.	$0.24

STYLE W—ROUND WIRE

No.	Length of brush part, inches	For flue sizes, inches	Weight per 100 (3" size)	List per inch diameter
1953	4½	1 to 6	44 lbs.	$0.24

ROUND STEEL WIRE—SINGLE SPIRAL BRUSH PARTS 4½ INCHES LONG

No.	Diameter of brush, inches	Length of handle, inches	Weight per 100	List per 100
914	3	48	82 lbs.	$ 62.00
916	4	48	94 lbs.	68.00
918	5	48	106 lbs.	76.00
924	3	60	94 lbs.	68.00
926	4	60	108 lbs.	72.00
928	5	60	122 lbs.	80.00

FOUNDRY BRUSHES

MILWAUKEE Casting Brushes are made of best quality, specially drawn and tempered steel wire securely fastened in selected, solid hardwood blocks. Evenly trimmed wires and uniformly well filled blocks.

PLAIN CASTING BRUSHES

No.	Rows	Length of wire, inches	Size of block, inches	Weight per gross	List per gross
1730	4x10	2	7¾x2¼	108 lbs.	$43.20
1731	4x10	3	7¾x2¼	120 lbs.	48.60
1732	4x10	4	7¾x2¼	135 lbs.	56.70
1734	5x10	2	7¾x2⅝	126 lbs.	48.60
1736	5x10	3	7¾x2⅝	144 lbs.	56.70
1737	5x10	4	7¾x2⅝	156 lbs.	62.10

Shipped in bulk.

List Prices Subject to Discount
Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

TRADE MILWAUKEE MARK

FLOOR SWEEPING BRUSHES

GENERAL PURPOSE

ALICE

Selected Black Fibre Center, Black Horsehair Casing. Wire fastened. Length of stock 2¾ inches. Red polished block. Red polished handle.

Alice Brushes are adapted for all general sweeping. Can be effectively used on cement, linoleum covered or wood floors.

Length	Weight per doz.	List per doz.
14 in.	30 lbs.	$18.50
16 in.	33 lbs.	20.00
18 in.	36 lbs.	22.50
24 in.	43 lbs.	32.50

PURE STIFF HORSEHAIR

ALMA

Stiff Pure Black Horsehair. Wire fastened. Length of stock 2¾ inches. Red polished block. Red polished handle.

Alma Brushes sweep thoroughly on tile and smooth finished floors. Extensively used on hotel and showroom floors.

Length	Weight per doz.	List per doz.
14 in.	30 lbs.	$25.00
16 in.	33 lbs.	28.50
18 in.	36 lbs.	32.50
24 in.	43 lbs.	51.00

STEEL WIRE AND FIBRE MIXTURE

ALENE

Mixed Fine Round Carbon Steel Wire and Selected Grey Fibre Center, Selected Grey Fibre Casing. Wire fastened. Length of stock 2¾ inches. Natural varnished block. Natural polished handle.

Alene Brushes, heavily filled, are effective on rough wood, cement or brick floors. Especially adapted for use in garages, machine shops, engine rooms, etc.

Length	Weight per doz.	List per doz.
16 in.	36 lbs.	$28.00
18 in.	42 lbs.	31.00
24 in.	48 lbs.	44.00

SPECIAL MIXTURE

VANGUARD

Pure Palmetto Center, Next Two Rows of Selected Grey Fibre. Pure Black Horsehair Casing. Wire fastened. Length of stock 3¼ inches. Red polished block. Red polished handle, threaded.

Vanguard Brushes excel in clean sweeping and prolonged wear. The Palmetto center adds cutting power and brushing resistance.

Length	Weight per doz.	List per doz.
16 in.	42 lbs.	$37.50
18 in.	46 lbs.	42.00
24 in.	56 lbs.	60.00

HEAVY DUTY BASSINE

JOE

Good Quality Genuine Bassine Fibre. Wire fastened. Length of stock 4 inches. Natural varnished block. Heavily filled. Extra heavy plain handles, tapered ends.

Joe Brushes defy all competition for hard, severe use. The tough yet flexible fibre possesses remarkable wearing quality.

Length	Weight per doz.	List per doz.
16 in.	48 lbs.	$23.00
18 in.	52 lbs.	25.50
24 in.	63 lbs.	36.00

STEEL WIRE CENTER

HUMMER

Center Row of Fine Round Carbon Steel Wire. Selected Black Fibre in Balance of Brush. Wire fastened. Length of stock 2⅝ inches in center row, 2⅞ inches in outer rows. Natural varnished block. Natural polished handle, threaded.

Hummer Brushes, because of their wire center, cut through grime and grease on dirty floors, leaving a clean surface.

Length	Weight per doz.	List per doz.
16 in.	33 lbs.	$25.20
18 in.	36 lbs.	28.00
24 in.	42 lbs.	42.00

Weights and prices listed on all floor brushes include handles.
All above brushes packed in individual cartons.

COUNTER BRUSHES

MAJOR

Pure Black Horsehair. Wire fastened. Natural Polished Blocks. Length of stock 2¼ inches.

Size	Weight per doz.	List per doz.
8 inches	6 lbs.	$ 8.50
9 inches	7 lbs.	10.00

A practical and serviceable brush for factory or general use at a low price.

Packed ½ dozen in carton.

ZIPPER

Stiff Black Horsehair. Wire fastened. Red Polished Block. Heavily Filled. Length of stock 2¼ inches.

Made in One Size Only

Size	Weight per doz.	List per doz.
8 inches	7 lbs.	$12.00

Splendid brushes for use around lathes, benches and shop equipment.

List Prices Subject to Discount

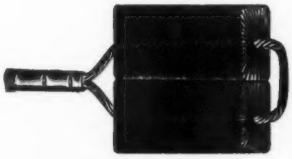
Write for General Catalog and Net Price Information

THE MILWAUKEE BRUSH MANUFACTURING CO.

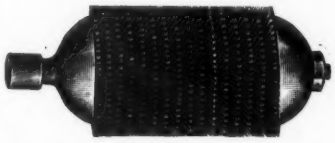
2212-2236 NORTH 30TH STREET MILWAUKEE, WISCONSIN

QUALITY INDUSTRIAL BRUSHES and BROOMS for all PRODUCTION and MAINTENANCE REQUIREMENTS

BOILER



• FLUE •



BRUSHES

Whatever the cleaning job—boiler, flue, radiator—you'll find a Schaefer heavy duty, hard wearing brush just right for it. 30 years of specialization in serving industrial requirements.

SCHAEFER
BRUSH MFG. CO.
1011 S. 2nd St., Milwaukee

Brushes, Flue, Boiler and Furnace

Advance Packing & Supply Co., Chicago.
Chesterton, A. W., Co., Boston, Mass.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Foundry

Browne, F. W., Co., Farmington, N. H.
Elder & Jenks, Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Gerts, Lumbard & Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lattner, A., & Sons, Detroit, Mich.
Lay, Joseph, Co., The, Portland, Ind.
Mason Brush Works, Worcester, Mass.
Manufacturers Brush Co., The, Cleveland.
Midwest Broom Manufacturing Co., Circleville, Ohio.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
National Brush Co., Aurora, Ill.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sence, L., & Son, New York, N. Y.
Spear Carbon Co., St. Marys, Ohio.
Van Expansion Bolt Mfg. Co., Chicago.
Warner, W. E., & Co., New York, N. Y.
Wilson, Ludwig, Co., Chicago, Ill.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Glue

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Manufacturers' Belt Hook Co., Chicago.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Schieren, Chas. A., Co., New York, N. Y.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Lacquering

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Loom and Comber

Elder & Jenks, Philadelphia, Pa.
Haisler Bros. Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Molders'

(See "Brushes, Foundry")

Brushes, Oil, Machinists'

Elder & Jenks, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., Co., New York, N. Y.

Brushes, Paint, Varnish, Calcimine, Whitewash, Etc.

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Manufacturers Brush Co., The, Cleveland, Ohio.
National Brush Co., Aurora, Ill.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Warner, W. E., & Co., New York, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Brushes, Platers' and Polishers'

Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester, Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Portable Grinding

Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumaitc Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Clevelanl.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee. Wis.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Warner, W. E., & Co., New York, N. Y.

Brushes, Radiator

Gerts, Lumbard & Co., Chicago, Ill.
Kendallville Brush & Broom Co., Kendallville, Ind.
Kova Brush & Broom Mfg. Co., Greensburg, Ind.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Rinn, Albert E., Co., Allentown, Pa.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.

Brushes, Roofing

All States Roofers Equipment & Material Co., Chicago, Ill.
Gerts, Lumbard & Co., Chicago, Ill.
Elder & Jenks, Philadelphia, Pa.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Milwaukee Brush Manufacturig Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Brushes, Sander

Black & Decker Mfg. Co., The, Towson, Md.
Elder & Jenks, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes, Sanitary

Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.

Brushes, Scratch

(See "Brushes, Wire")

Brushes, Scrub

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Warner, W. E., & Co., New York, N. Y.

Brushes, Stencil

Elder & Jenks, Philadelphia, Pa.
Gerts, Lumbard & Co., Chicago, Ill.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Osborn Manufacturing Co., The, Cleveland.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rubberset Co., New York, N. Y.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.

Brushes, Varnish

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Wheel, Bristle and Fibre

Elder & Jenks, Philadelphia, Pa.
Manufacturers Brush Co., The, Cleveland.
Mason Brush Works, Worcester. Mass.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Wheel, Wire and Fibre

Black & Decker Mfg. Co., The, Towson, Md.
Elder & Jenks, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.

UMI

WIRE WHEEL • BRUSHES

The Schaefer line of wire wheel brushes is complete — fine and coarse wire, brass and steel wire, fibre or bristle. Depend on it to supply you every requirement in all shapes and sizes. Also count on Schaefer for allied lines of industrial brushes. 30 years in service to industry.

FINE BRASS or STEEL WIRE BRUSHES

SCHAEFER BRUSH MFG. CO.
1011 S. 2nd St. MILWAUKEE

Osborn Manufacturing Co., The, Cleveland.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Whitewash

(See "Brushes, Paint, Varnish, Calcimine, Whitewash, etc.")

Brushes, Window Washing

Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Osborn Manufacturing Co., The, Cleveland, Ohio.

Brushes, Wire, Circular

Dallett Co., The, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Warner, W. E., & Co., New York, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Brushes, Wire, Hand

Dallett Co., The, Philadelphia, Pa.
Kendallville Brush & Broom Co., Kendallville, Ind.
Lay, Joseph, Co., The, Portland, Ind.
Manufacturers Brush Co., The, Cleveland.
Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Irvington, N. J.
Osborn Manufacturing Co., The, Cleveland.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
Rinn, Albert E., Co., Allentown, Pa.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Sullivan Brush Co., Terre Haute, Ind.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Warner, W. E., & Co., New York, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Buckets, Clam Shell and Orange Peel

Blaw-Knox Co., Pittsburgh, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Marion Steam Shovel Co., The, Marion, O.
Milwaukee Electric Crane & Hoist Corp., West Allis, Wis. (Clam shell only)
Seaverns, James B., Co., Batavia, Ill.

Buckets or Pails—Fire, Water, Etc.

(See "Pails")

Buckets, Grease

Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Buffers

(See "Machines, Buffing and Polishing," and "Machines, Buffing, Pneumatic")

Buffing and Polishing Wheels

(See "Wheels, Buffing and Polishing")

Buggies, Lumber

(See "Trucks and Buggies, Lumber")

Bulbs, Furnace, Rubber

Bernz, Otto, Co., Inc., Rochester, N. Y.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.

Bull Points

Arro Expansion Bolt Co., Marion, Ohio.
Channon, J. H., Corp., Chicago, Ill.
Kilborn & Bishop Co., New Haven, Conn.

Bulldozers

Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Pels, Henry, & Co., Inc., New York, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.

Bumpers, Railroad Car

Standard Packing & Rubber Co., New York.

Bumpers, Rubber

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodyear Tire & Rubber Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Nutting Truck Co., Faribault, Minn.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.

Burners, Annealing

Best, W. N., Corp., New York, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Macleod Co., The, Cincinnati, Ohio.
R. S. Products Corp., Philadelphia, Pa.

Burners, Bunsen

Boekel, Wm., & Co., Philadelphia, Pa.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Hones, Chas. A., Inc., Baldwin, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Burners, Combination, for Fuel Oil and Gas

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Morley Co., LaPorte, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Efficiency Engineering Co., Boston, Mass.
Scovill Mfg. Co., Waterbury, Conn.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
R. S. Products Corp., Philadelphia, Pa.

Burners, Kerosene, Portable

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Perkins Marine Lamp Corp., Brooklyn.
Sandvik Saw & Tool Corp., Minneapolis.
Scovill Mfg. Co., Waterbury, Conn.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.

Burners, Lead

(See "Lead Burning Outfits")

Burnishing Machines

(See "Barrels, Burnishing" and "Machines, Buffing and Polishing")

Burring Machines

(See "Machines, Burring")

Burrs, Brass and Copper

(See "Rivets and Burrs, Brass and Copper")

Burrs, Steel and Wrought Iron

Atlas Tack Corp., Fairhaven, Mass.
Bay State Stamping Co., Worcester, Mass.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Massachusetts Machine Shop, Inc., Boston, Mass.
Master Products Co., The, Cleveland, O.
Pratt & Whitney Co., Hartford, Conn.
Reed & Prince Mfg. Co., Worcester, Mass.
Stanley Works, The, New Britain, Conn.

Bushings, Bronze, Finished

Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
American Non-Gran Bronze Corp., Berwyn, Pa.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bearium Metals Corporation, Rochester, N. Y.
Boston & Lockport Block Co., East Boston, Mass.

Distributors—

Want More Help?

Write MILL SUPPLIES —and we will assist you in every possible way

UMI

OSBORN

A COMPLETE LINE OF QUALITY BRUSHES

PAINT AND VARNISH BRUSHES

The extensive line of Osborn Paint and Varnish Brushes includes a correct style and size to meet every need.

Every Osborn Paint and Varnish Brush is a combination of correct materials, correct design and accurate workmanship.

See Pages 11 to 28 in No. 180 Catalog.

WIRE WHEEL BRUSHES

A great range of industrial requirements are met by the exceptionally complete line of Osborn Wire Wheel Brushes.

The Osborn line includes complete wire wheels of various types and various types of Wire Wheel Sections designed for building up almost any required width of face.

See Pages 54 to 63 in No. 180 Catalog

FIBRE WHEEL BRUSHES

Both individual Sections (for building up any desired width of face) and complete wheels are included in the line of Osborn Fibre Wheel Brushes.

Medium grade of White Tampico Fibre (called "B" Standard) is regularly used. Finer ("A" Grade) or Coarser ("C" Grade) textures of White or Gray Tampico Fibre can be furnished as specials, if desired.

See Pages 64 and 65 in No. 180 Catalog.

FLOOR BRUSHES

Osborn Floor Brushes meet a wide range of industrial and commercial sweeping requirements.

There are three classifications of sweeping for which the various types of Osborn Floor Brushes are designed: Coarse, Medium and Fine Sweeping.

See Pages 32 to 34 in No. 180 Catalog.

PUSH BROOMS

The various materials used in Osborn Fibre Push Brooms are carefully selected and matched to job requirements. The wide flare on the sides and ends of Osborn Fibre Push Brooms make it possible to cover larger surfaces and to sweep close to walls or curbing. A wide selection of Osborn Wire Push Brooms are also available.

See Pages 35 to 37 in No. 180 Catalog.

UPRIGHT BASS BROOMS

A seamless steel cap, developed and perfected by Osborn, plus specially prepared Bass Fibre gives Osborn Upright Bass Brooms exceptionally sturdy construction and long life. The line includes a correct type for Coarse, Medium and Fine Sweeping. Upright Flat Wire Track Brooms are also included in the line.

See Page 38 in No. 180 Catalog.

WIRE SCRATCH BRUSHES

Osborn Wire Scratch Brushes are skillfully shaped to make the work easier and quicker.

The wide range of types and sizes meet a great diversity of requirements for cleaning, removing, brushing, etc.

Quality materials and expert craftsmanship combine to make Osborn Wire Scratch Brushes unsurpassed for long lasting performance.

See Pages 29 and 30 in No. 180 Catalog.

COUNTER BRUSHES

Osborn Counter or Bench Dusters include standard styles and sizes to meet practically all requirements.

Materials used in the various brushes provide a selection to meet each specific need for Coarse, Medium or Fine Work.

Brush designs are carefully planned for easy, effective brushing.

See Pages 39 and 40 in No. 180 Catalog.

WINDOW BRUSHES

Osborn Window Cleaning Brushes include an adequate range of styles and sizes to meet practically every brush requirement under this classification.

Styles of Osborn Window Brushes include the Oblong, Round, "Spider" pattern and others.

See Pages 41 and 42 in No. 180 Catalog.

MISCELLANEOUS BRUSHES

The great diversity of miscellaneous types of Osborn Brushes include such kinds as Plater's Brushes, Sanitary, Scrubs, Automobile Brushes, Flue and Heater Brushes, Wire Casting Brushes, Moulders' Brushes and many others.

See Pages 43 to 53, 66 to 72, and 74 in No. 180 Catalog for a complete guide to all kinds of miscellaneous Brushes.

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Heller, W. C., & Co., Montpelier, Ohio.
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(See "Cases, Drill and Reamer")

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Safety Fire Extinguisher Co., The, New York, N. Y.
Safety Wrench & Appliance Co., Springfield, Mass.
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Durabilt Steel Locker Co., Aurora, Ill.
Heller, W. C., & Co., Montpelier, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Lyon Metal Products, Inc., Aurora, Ill.
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Williamsport Wire Rope Co., Williamsport, Pa.

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Rochester Can Co., Rochester, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
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Justrite Manufacturing Co., Chicago, Ill.
Rochester Can Co., Rochester, N. Y.
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Mine Safety Appliances Co., Pittsburgh.
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(See "Pittings, Hose")

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Kuhns Bros. Co., Dayton, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
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Newbury Manufacturing Co., Monroe, N. Y.
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Crane Co., Chicago, Ill.
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For more than a quarter century the ATLAS has been the preferred mover for short spotting such as is necessary on practically all sidings.

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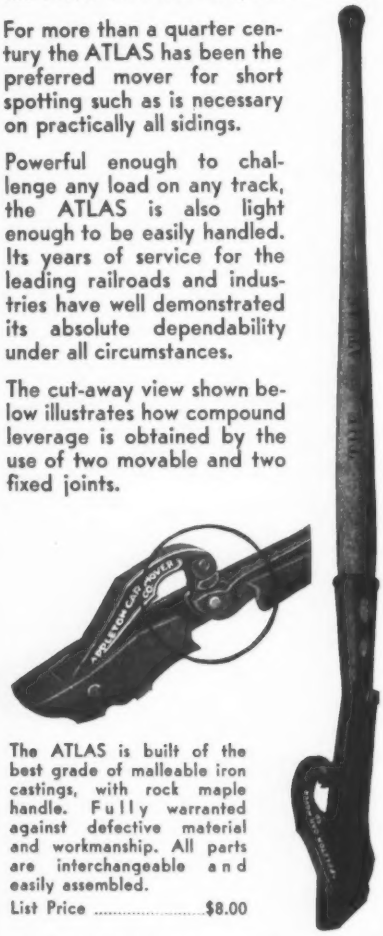
The cut-away view shown below illustrates how compound leverage is obtained by the use of two movable and two fixed joints.



The ATLAS is built of the best grade of malleable iron castings, with rock maple handle. Fully warranted against defective material and workmanship. All parts are interchangeable and easily assembled.

List Price $8.00

ATLAS Car Wrench

A necessary and safe tool for opening hopper type cars. Fits any winding tap from 1" to 2¾" square without adjustment. Impossible for it to catch or spin with the shaft as it automatically opens when the shaft begins to spin. . . . Made of best quality malleable iron with handle of selected maple.

List Price, 54" leverage.....$5.00

Sold by Distributors. Ask for Catalog

APPLETON-ATLAS CAR MOVER CORP.
2947 North 30th St., Milwaukee, Wis.
(Formerly of Appleton, Wis.)

ATLAS car MOVER POWER!

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Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, Pa.
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Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Link-Belt Co., Chicago, Ill.
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Tallman Manufacturing Co., Shelbyville, Ill.
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(See "Pullers, Car")

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Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
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Wood's, T. B., Sons Co., Chambersburg, Pa.

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Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.

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Products Manufacturing Co., Milwaukee.
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Carts, Concrete

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Jackson Manufacturing Co., Harrisburg, Pa.
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Red Star Products Corp., Cleveland, Ohio.
Sidney Steel Scraper Co., The, Sidney, O.
Sterling Wheelbarrow Co., Milwaukee.
Toledo Wheelbarrow Co., The, Toledo, O.

Carts, Foundry, Charging

Sterling Wheelbarrow Co., Milwaukee.

Carts, Hand

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.

SWACO

SAFETY CAR MOVER

SPURS bite into the rail edges

This new car mover is light in weight, 16 lbs., yet is powerful and rugged. The pressure is scientifically triangulated to throw entire weight on spurs which are so placed as to grip the corners of the rail . . . not a chance of slipping.

This mover will get UNDER the load and place the handle high, enabling the operator to use full strength safely in starting the car.

Mover "ratchets" easily once the car is started and the angle of spurs prevents any chance of mover leaving the rail accidentally.

SPECIFICATIONS

Handle—Selected white hickory, 53½" long, waxed finish. Spurs—Special heat treated alloy steel with four sharp edges placed at extreme angle to grip the corners of the rail rather than the hard glazed top surface.

SAFETY WRENCH & APPLIANCE CO.
56 Commercial St.
WORCESTER, MASS.

Also see our advertisement on SWACO Safety Hopper Car Wrench near listing "Wrenches, Car."

UMI

ADVANCE CAR MOVER CO., Inc., APPLETON, WIS.

Car Movers - - Car Wrenches

BADGER POWER KING CAR MOVER

A mover with triple compound leverage, alloy steel roller type, giving faster action and greater ease in operation, with no lost motion. Spurs set at an angle in concave spur plate, assuring positive track grippage. Spur plate so constructed as to eliminate wear on shoe. Improved saddle toggle and improved connection so arranged that both nose and shoe and toggle operate as a single unit. This mover has a world of power and will move a locomotive. Handle is selected maple, straight grained and turned oversize.

Weight 18 pounds. Length over-all, 70 inches.

Price $9.00

BADGER POWER BOY CAR MOVER

Designed to handle average loads. Provides great power because of its short coupled saddle toggle. Rounded nose on saddle toggle gives fast action and elongated slot on shoe eliminates lost motion. As in Power King, spurs are set at an angle in a concave spur plate. This mover is two and one-half pounds lighter and has no equal for average car moving. Special malleable constructed. Handle is selected maple and is straight grained and turned oversize.

Weight, 15½ pounds. Length over-all, 68 inches.

Price $8.00

BADGER No. 5 CAR MOVER

The NEW BADGER is light and well balanced, easy to handle and transport from place to place. Compound leverage provides a powerful forward thrust that will move any car. Besides having the "power" it has a quick-acting toggle action that will move and follow up empty cars faster than any other.

Castings—Certified Malleable Iron of very highest tensile and ultimate strength.

Handle—Selected Wisconsin Rock Maple—straight grained and turned oversize.

Spurs—Slip-proof, double construction. Made of Special steel rolled for the purpose and carefully hardened and oil drawn.

Weight 18 pounds. Length over-all, 70 inches.

Price Complete, $8.00 List

ADVANCE SAFETY CAR WRENCH

The Advance automatically adjusts itself for attaching to any size winding taps found on standard drop bottom cars. Simply toss the wrench on the winding tap, press the handle and the jaws close until the square of the winding tap is firmly gripped. Nothing to get out of order—no teeth to mar the tap or get dull. One bolt holds all the castings together. Perfectly safe to operate—a slight jerk instantly releases the wrench so that the winding tap can spin freely without catching the wrench and striking the operator. Made of sturdy Certified Malleable oversize castings—hard maple handle. Length, over-all, 60 inches. Weight, 16 pounds.

Price $8.00

BADGER POWER KING Repair Parts

No. 11 SHOE COMPLETE, with spurs, plate and bolts	$3.50
No. 11 SHOE ONLY, with No. 27 bolt	2.50
No. 13 SOCKET COMPLETE, with Roller No. 26, Saddle Toggle No. 12, Bolts No. 27 and Rivet No. 15	3.50
No. 13 SOCKET ONLY, with No. 27 bolt	2.00
No. 10 SPUR PLATE with No. 21 bolt	.50
No. 12 SADDLE TOGGLE with rivet	1.00
No. 15 RIVET for roller	.10
No. 21 BOLT for spur plate No. 10	.10
No. 22 SPURS, slip proof double	.50
No. 26 ROLLER	.20
No. 27 BOLT for attaching No. 11 Shoe	.20
No. 20 HANDLE, second growth rock Maple	2.00

BADGER POWER BOY Repair Parts

No. T SHOE COMPLETE, with spurs, plate and bolts	$3.00
No. T SHOE ONLY, with No. J bolt	2.00
No. Y SOCKET COMPLETE, with K Saddle Toggle, bolts and rivet	3.00
No. Y SOCKET ONLY, with bolt No. J.	2.00
No. K SADDLE TOGGLE with rivet	1.00
No. I PLATE with bolt No. L	.50
No. J BOLT for attaching shoe	.20
No. L BOLT for attaching plate	.10
No. W RIVET for Saddle Toggle	.10
No. 20 HANDLE, second growth Maple	2.00
No. 22 SPURS, slip proof double	.50

BADGER No. 5 CAR MOVER Repair Parts

No. A SHOE COMPLETE, with Spurs, Plate, Bolts and Rivets	$3.00
No. A SHOE ONLY with Toe Rivet and No. 23 Bolt	2.00
No. B SOCKET COMPLETE with No. C Toggle attached and No. 23 Bolt	3.00
No. B SOCKET ONLY, with No. 23 Bolt and No. 24 Rivet	2.00
No. C TOGGLE or CAM with No. 24 Rivet	1.00
No. D SPUR PLATE or CLAMP with No. 21 Bolt	.50
No. 20 HANDLE—second growth Maple	2.00
No. 21 BOLT for attaching No. D Plate	.10
No. 22 SPURS, Slip-Proof Double	.50
No. 23 BOLT, for attaching A Shoe	.20
No. 24 RIVET, for Cam No. C	.10
No. 25 TOE RIVET—hard steel	.20

ADVANCE SAFETY CAR WRENCH Repair Parts

No. 100 FRAME	$2.40
No. 101 SLIDING JAW	1.50
No. 102 SOCKET	2.40
No. 103 HANDLE	1.50
No. 104 BOLT	.20
No. 105 STEEL SPUR	.50

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For every purpose

TRUCK CASTERS
FURNITURE CASTERS
OFFICE CHAIR CASTERS
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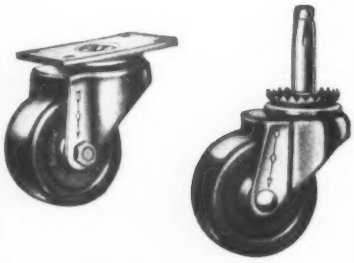
Casters for everything from tea tables to ten ton trucks



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Cross Engineering Co., Carbondale, Pa.
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Union Twist Drill Co., Athol, Mass.
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Cases, Flexible Shaft

(See "Cores and Cases, Flexible Shaft")

Casing, Steam Pipe

(See "Covering or Casing, Steam Pipe")

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Republic Iron Steel Corp., Youngstown, O.
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South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh.

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Fairfield Engineering Co., Marion, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
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Webster Mfg. Co., Chicago, Ill.
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Elkhart Foundry & Machine Co., Elkhart, Ind.
Elkhart Iron Works, Elkhart, Ind.
Frederick Iron & Steel Co., The, Frederick, Md.

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American Foundry & Mfg. Co., St. Louis.
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Crane Co., Chicago, Ill.
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Frederick Iron & Steel Co., The, Frederick, Md.
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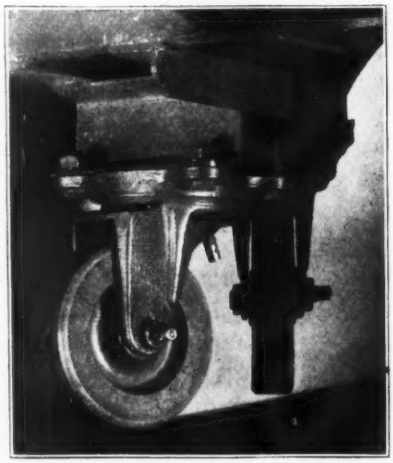
Noyes, B. B., Co., Greenfield, Mass.
S. E. T. Valve and Hydrant Co., New York.

The ACE of CASTERS



(See also the QUEEN of TRUCKS under "Trucks")

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Casters for every Industrial Purpose
Single and double wheel
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Chicago Belting Co., Chicago, Ill.
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Philadelphia Belting Co., Philadelphia, Pa.
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Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Keystone Refractories Co., New York.
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Otley Paint Mfg. Co., Chicago, Ill.
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Technical Products Co., Pittsburgh, Pa.
Wills Products Co., The, New York, N. Y.

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Carborundum Co., The, Niagara Falls, N. Y.
Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
Technical Products Co., Pittsburgh, Pa.

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Campbell-Hausfeld Co., The, Harrison, O.
Carborundum Co., The, Niagara Falls, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Johns-Manville Sales Corp., New York.
Keystone Refractories Co., New York.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Quigley Co., Inc., New York, N Y.
R. S. Products Corp., Philadelphia, Pa.
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Ehret Magnesia Mfg. Co., Valley Forge, Pa.
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Quigley Co., Inc., New York, N. Y.
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Technical Products Co., Pittsburgh, Pa.
Wilbur & Williams Co., The, Boston, Mass.

Cement, High Temperature

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Botfield Refractories Co., Philadelphia, Pa.
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Carborundum Co., The, Niagara Falls, N. Y.
Carey, Philip Co., The, Lockland, Cincinnati, Ohio.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
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Huyette, Paul B., Co., Inc., Philadelphia.
Johns-Manville Sales Corp., New York.
Key Boiler Equipment Co., East St. Louis, Ill.
Keystone Refractories Co., New York.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Quigley Co., Inc., New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.
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Lyon, Conklin & Co., Inc., Baltimore, Md.
Otley Paint Mfg. Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Smooth-On Manufacturing Co., Jersey City, N. J.
Technical Products Co., Pittsburgh, Pa.
Whitlam, J. C., Mfg. Co., Wadsworth, O.

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Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.

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Blue Seal Chemical Co., Roselle Park, N. J.
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Cling-Surface Co., Buffalo, N. Y.
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Frederick Reisman, Pres.
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For use on Flanges, Gaskets and all Pipe Connections where a waterproof compound is necessary.

"PLUMTITE"
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A special compound for use on Pipe Lines carrying Oil, Gasoline, Acid, Steam, Vapor, etc. Packed in cans, drums and barrels.

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Hinds and Coon Co., Boston, Mass.
Ideal Commutator Dresser Co., Sycamore, Ill.
Johns-Manville Sales Corp., New York.
Key Boiler Equipment Co., East St. Louis, Ill.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., San Francisco.
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Ruberoid Co., New York, N. Y.
Smooth-On Manufacturing Co., Jersey City, N. J.
Superior Flake Graphite Co., Chicago, Ill.
Technical Products Co., Pittsburgh, Pa.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wilbur & Williams Co., The, Boston, Mass.
Wills Products Co., The, New York, N. Y.

Cement, Pulley Cover

Alexander Brothers, Inc., Philadelphia.
Chicago Belting Co., Chicago, Ill.
Imperial Belting Co., Chicago, Ill.
Moloney Belting Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.

Cement, Pulley Surfacing

(See "Covering, Pulley")

Cement, Refractory

Botfield Refractories Co., Philadelphia, Pa.
Campbell-Hausfeld Co., The, Harrison, O.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
General Refractories Co., Philadelphia, Pa.
Green, A. P., Fire Brick Co., Mexico, Mo.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Huyette, Paul B., Co., Inc., Philadelphia
Johns-Manville Sales Corp., New York.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Quigley Co., Inc., New York, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Smooth-On Manufacturing Co., Jersey City, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Technical Products Co., Pittsburgh, Pa.

Cement, Roofing

American Asphalt Paint Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Carter Paint Co., Liberty, Ind.
Colebrook's, W. H., Sons, Inc., Syracuse, N. Y.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Ensign Products Co., Cleveland, Ohio.
Johns-Manville Sales Corp., New York.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Ruberoid Co., The, New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York, N. Y.

Cement, Rubber

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Gross Rubber Co., Sharon, Pa.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Miller Rubber Co., The, Akron, Ohio.
New York Belting & Packing Co., Passaic, N. J.
Norton Belting Co., Wellesley Hills, Mass.
Raniville, F., Co., Grand Rapids, Mich.
Republic Rubber Co., The, Youngstown, O.
Standard Packing & Rubber Co., New York, N. Y.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wilbur & Williams Co., The, Boston, Mass.

Cement or Compound, Sewer Pipe

Otley Paint Mfg. Co., Chicago, Ill.
Pacific Chemical Co., Los Angeles, Calif.
Quigley Co., Inc., New York, N. Y.
Ruberoid Co., The, New York, N. Y.
Technical Products Co., Pittsburgh, Pa.
Wilbur & Williams Co., The, Boston, Mass.

Center Finders

(See "Finders, Center")

Centering Machines

(See "Machines, Centering")

Centers, Bench

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Delta Mfg. Co., Milwaukee, Wis.
Sundstrand Machine Tool Co., Rockford, Ill.

Centers, Index

Knight, W. B., Machinery Co., St. Louis.
Sundstrand Machine Tool Co., Rockford, Ill.

Centers and Points, Lathe

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cleveland Twist Drill Co., Cleveland, O.
Glenzer, J. G., Co., The, Detroit, Mich.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Centrifugals

Ampco Metal, Inc., Milwaukee, Wis.
Barrett, Leon J., Co., The, Worcester, Mass.
De Laval Steam Turbine Co., Trenton, N. J.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.

Chain, Block or Pocket Wheel.

American Chain Co., Inc., Bridgeport, Conn.
Boston Gear Works, Inc., North Quincy, Mass.
Boston & Lockport Block Co., East Boston, Mass.
Channon, J. H., Corp., Chicago, Ill.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Diamond Chain and Mfg. Co., Indianapolis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Ford Chain Block Co., Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., Columbus, O.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Osborn Manufacturing Co., The, Cleveland.
Philadelphia Gear Works, Philadelphia.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Round, David, and Son, Cleveland, Ohio.
Speidel Elevator Corp., Reading, Pa.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Mfg. Co., The, Hartford, Conn.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Boiler

(See "Chain, Heating Furnace and Boiler")

Chain, Boom or Rafting

American Chain Co., Inc., Bridgeport, Conn.
Bradlee & Company, Inc., Philadelphia.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Brake

American Chain Co., Inc., Bridgeport, Conn.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Brass and Bronze

American Chain Co., Inc., Bridgeport, Conn.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Diamond Chain and Mfg. Co., Indianapolis.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Michigan Sprocket Chain Co., Detroit.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.

Chain, Breast

American Chain Co., Inc., Bridgeport, Conn.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Cable

American Chain Co., Inc., Bridgeport, Conn.
Bradlee & Co., Inc., Philadelphia, Pa.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dallett Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Chain, Coil

American Chain Co., Inc., Bridgeport, Conn.
Chain Products Co., The, Cleveland, Ohio.

Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton, E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Chain, Conveyor and Elevator

American Chain Co., Inc., Bridgeport, Conn.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Diamond Chain and Mfg. Co., Indianapolis, Ind.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., Marion, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Hunter, James, Machine Co., North Adams, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The (Formerly United States Chain & Forging Co., Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Michigan Sprocket Chain Co., Detroit.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain Dogs

(See "Dogs, Chain")

Chain, Drag

American Chain Co., Inc., Bridgeport.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Dredge

American Chain Co., Inc., Bridgeport.
Bradlee & Co., Inc., Philadelphia, Pa.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Round, David, and Son, Cleveland, Ohio.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Heating Furnace and Boiler

American Chain Co., Inc., Bridgeport.
Chain Products Co., The, Cleveland, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa. (Boiler)
Mattatuck Mfg. Co., The, Waterbury, Conn.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain Hoists

(See "Hoists, Chain")

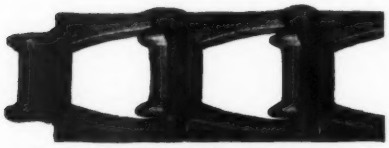
Chain, Hoist

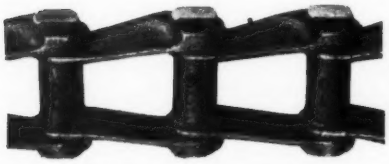
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Osborn Manufacturing Co., The, Cleveland.
Round, David, and Son, Cleveland, Ohio.
Sampson Tool Co., Inc., New York, N. Y.
Speidel Elevator Corp., Reading, Pa.
Taylor, S. G., Chain Co., Hammond, Ind.
Union Manufacturing Co., New Britain, Conn.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

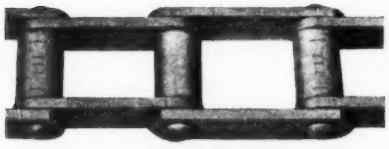
Chain, Jack

American Chain Co., Inc., Bridgeport.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Hobbs, Clinton E., Co., Boston, Mass.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Sargent & Co., New Haven, Conn.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.
Washburn Co., The, Worcester, Mass.

Chains for Elevators—Conveyors—and Drives


Detachable Link (Malleable-Supermal)


Reliance (Malleable-Supermal)


Hercules (Malleable-Supermal)

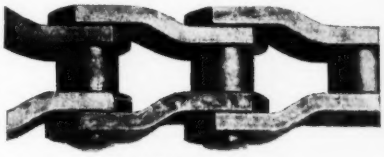
From the complete line of Jeffrey Chains you can select a type—steel, malleable or "Supermal"—for any elevating, conveying or driving need.

Resistance to wear, high tensile strength and elastic limit, are qualities to be found in all Jeffrey Chains. Elevating, conveying and driving units equipped with them, give long life and dependable service with a minimum of repairs.

"Supermal" is a superior quality of malleable iron produced by a process that materially increases its resistance to wear and raises the tensile strength and elastic limit, yet does not appreciably reduce elongation.

Also Bucket Elevators, Conveyors, Portables, Crushers, Transmission Machinery, etc.

Prompt shipment assured from large stock. Write us today.


Steel Thimble Roller

Malleable Roller (also Supermal)

Peerless (Malleable-Supermal)

The Jeffrey Manufacturing Company

930-99 North Fourth St., Columbus, Ohio

New York Buffalo Rochester, N. Y. Philadelphia Pittsburgh Scranton, Pa. Boston Cincinnati Cleveland Detroit Chicago Huntington, W. Va. Milwaukee Salt Lake City Denver Dallas Birmingham

Jeffrey Manufacturing Company, Ltd., of Canada. Head Office and Works, Montreal. Branch Offices: Toronto—Calgary—Vancouver

ACCO

CHAINS FOR ALL INDUSTRIAL PURPOSES

MACHINE • AJAX LOADING • DREDGE, SLING
PROOF COIL • LOGGING • HOOKS AND SHACKLES
BBB COIL • CONVEYOR • TENSO

All kinds of Chain—both

WELDED *and* WELDLESS

The American Chain Company, Inc., is the world's largest manufacturer of Welded and Weldless Chains for all purposes. This implies the responsibility of leadership in service and quality of product.

There is quality in every link—quality of metals, materials, tests and inspection. ACCO products are distributed through regular wholesale channels. Regardless of your needs, specify ACCO chain and you will be certain of quality.

NRA CODE

AMERICAN CHAIN COMPANY, INC.
BRIDGEPORT • CONNECTICUT

Chain, Loading

American Chain Co., Inc., Bridgeport, Conn.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Michigan Sprocket Chain Co., Detroit.
Newhall Chain Forge & Iron Co. (Div. of Henry B. Newhall Corp.), New York.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Log or Binding

American Chain Co., Inc., Bridgeport, Conn.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Malleable Iron and Steel Combination

Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Hunter, James, Machine Co., North Adams, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Moline Malleable Iron Co., St. Charles, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain, Marine

American Chain Co., Inc., Bridgeport, Conn.
Bradlee & Co., Inc., Philadelphia, Pa.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Chain, Pipe Hanging

American Chain Co., Inc., Bridgeport, Conn.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.

Chain, Plumbers'

American Chain Co., Inc., Bridgeport, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Crane Co., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Smith & Egge, Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.
Washburn Co., The, Worcester, Mass.
Wright-Austin Co., Detroit, Mich.

Chain, Pocket Wheel

(See "Chain, Block or Pocket Wheel")

Chain, Rafting

(See "Chain, Boom or Rafting")

Chain, Railroad

American Chain Co., Inc., Bridgeport, Conn.
Chain Products Co., Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Taylor, S. G., Chain Co., Hammond, Ind.

Chain, Roller

Boston Gear Works, Inc., North Quincy, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cullman Wheel Co., Chicago, Ill.
Diamond Chain and Mfg. Co., Indianapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., Inc., Milwaukee, Wis.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Michigan Sprocket Chain Co., Detroit.
Philadelphia Gear Works, Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Mfg. Co., The, Hartford, Conn.

Chain, Safety

American Chain Co., Inc., Bridgeport, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Corbin Screw Corp., The, New Britain, Conn.
Hobbs, Clinton E., Co., Boston, Mass.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Sargent & Co., New Haven, Conn.
Smith & Egge Division of The Turner Seymour Mfg. Co., Torrington, Conn.
Taylor, S. G., Chain Co., Hammond, Ind.
Washburn Co., The, Worcester, Mass.

Chain, Sawmill

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Chain Co., Inc., Bridgeport, Conn.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Forging Co., Cleveland.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Michigan Sprocket Chain Co., Detroit.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Taylor, S. G., Chain Co., Hammond, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chain Shackles and Clevises

(See "Shackles and Clevises, Chain")

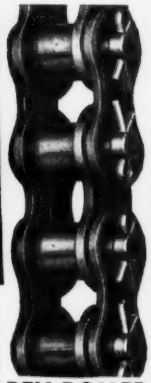
Chain, Sling

American Chain Co., Inc., Bridgeport, Conn.
Bradlee & Co., Inc., Philadelphia, Pa.
Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Round, David, and Son, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.

UMI

REX CHAIN

FOR EVERY DRIVE & CONVEYOR

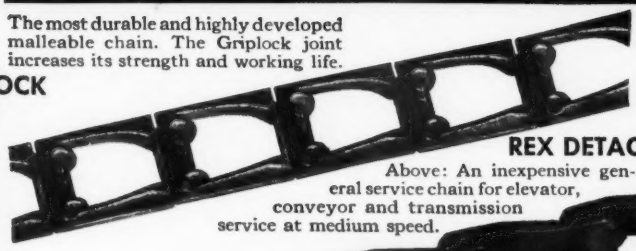


REX GRIPLOCK

The most durable and highly developed malleable chain. The Griplock joint increases its strength and working life.

REX ROLLER

Accuracy, uniformity, high tensile strength and a high degree of finish make this an outstanding high speed drive chain. Single and multiple strands.

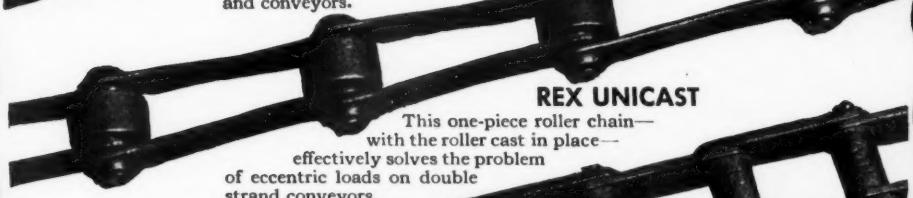


REX DETACHABLE

Above: An inexpensive general service chain for elevator, conveyor and transmission service at medium speed.

REX CHABELCO

A highly developed steel chain with Rex Press Fit construction. For high speed drives and conveyors.

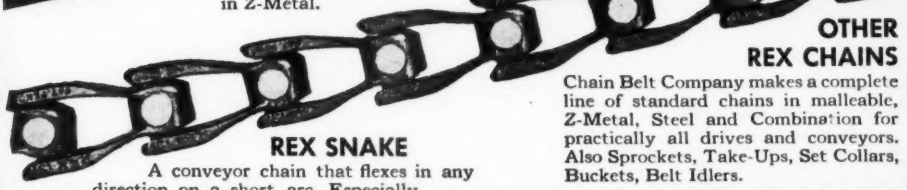


REX UNICAST

This one-piece roller chain—with the roller cast in place—effectively solves the problem of eccentric loads on double strand conveyors.

REX DUROBAR

The added metal on the barrel of the block link makes this a longer lasting combination chain—especially when cast in Z-Metal.



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McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
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Hobbs, Clinton E., Co., Boston, Mass.
Hunter, James, Machine Co., North Adams, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Philadelphia Gear Works, Philadelphia.
Ramsey Chain Co., Inc., Albany, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney Mfg. Co., The, Hartford, Conn.

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Diamond Chain and Mfg. Co., Indianapolis, Ind.
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Hobbs, Clinton E., Co., Boston, Mass.
Hunter, James, Machine Co., North Adams, Mass.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., Ithaca, N. Y.
Philadelphia Gear Works, Philadelphia.
Ramsey Chain Co., Inc., Albany, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney, Mfg. Co., The, Hartford, Conn.

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Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
Corbin Screw Corp., The, New Britain, Conn.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hobbs, Clinton E., Co., Boston, Mass.
Smith & Egge Division of The Turner & Seymour Mfg. Co., The, Torrington, Conn.

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Cleveland Chain & Mfg. Co., The, Cleveland, Ohio.
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Hobbs, Clinton E., Co., Boston, Mass.
McKay Co., The (Formerly United States Chain & Forging Co.), Pittsburgh, Pa.
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(See "Stools and Chairs, Factory, Steel")

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(See "Tools, Calking")

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Hubbard & Co., Pittsburgh, Pa.
Husky Corp., Kenosha, Wis.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Kilborn and Bishop Co., The, New Haven.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
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Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
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(See "Chisels—Brick, Tile, Stone Cutters', Etc.")

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Bernz, Otto, Co., Inc., Rochester, N. Y.
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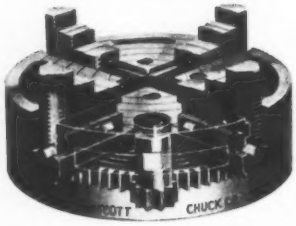

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Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Independent

Cushman Chuck Co., The, Hartford, Conn.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

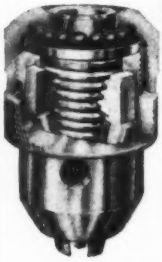
Chucks, Lathe

Chicago Tool & Engineering Co., Chicago.
Conant & Donelson Co., Conway, Mass.
Cushman Chuck Co., The, Hartford, Conn.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Lever Scroll

Horton, E., & Son Co., The, Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.

THE *Ettco*



HAND OPERATED
DRILL CHUCK

The one hand operated chuck that has lived well thru the years.

ETTCO TOOL CO.
BROOKLYN, N. Y.

Chucks, Magnetic

Sampson Tool Co., Inc., New York, N. Y.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Chucks, Milling Machine

Brown & Sharpe Mfg. Co., Providence.
Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Hannifin Manufacturing Co., Chicago.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Van Norman Machine Tool Co., Springfield, Mass.

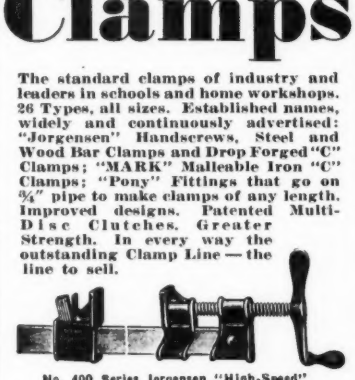
Chucks and Holders, Nipple

Armstrong Manufacturing Co., Bridgeport, Conn.
Curtis & Curtis Co., The, Bridgeport, Conn.

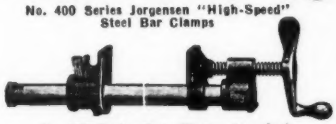
TRADE MARK
"Jorgensen"
REG U S PAT OFF

Clamps

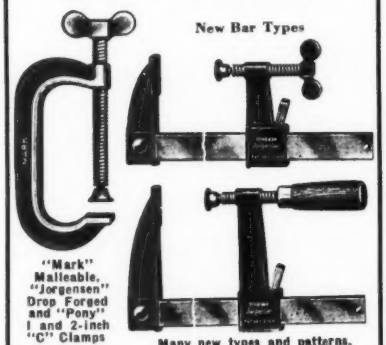
The standard clamps of industry and leaders in schools and home workshops. 26 Types, all sizes. Established names, widely and continuously advertised: "Jorgensen" Handscrews, Steel and Wood Bar Clamps and Drop Forged "C" Clamps; "MARK" Malleable Iron "C" Clamps; "Pony" Fittings that go on ¾" pipe to make clamps of any length. Improved designs. Patented Multi-Disc Clutches. Greater Strength. In every way the outstanding Clamp Line — the line to sell.



No. 400 Series Jorgensen "High-Speed" Steel Bar Clamps



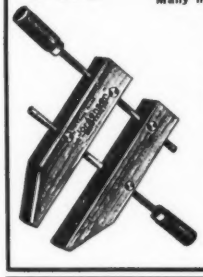
No. 500 Series Pony Clamps (on pipe)



New Bar Types

"Mark" Malleable, "Jorgensen" Drop Forged and "Pony" 1 and 2-inch "C" Clamps

Many new types and patterns.



Genuine Jorgensen Handscrews — the world's most widely used clamps (See page 208). Write for Catalog Sheets.

ADJUSTABLE CLAMP CO.
The Clamp Folks
413 N. Ashland Ave., Chicago, Ill.

Chucks, Planer

Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.

Chucks, Ring Wheel

Skinner Chuck Co., The, New Britain, Conn.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Chucks, Spring

Scully-Jones & Co., Tool Division, Chicago.

Chucks, Tapping Machine

Chicago Tool & Engineering Co., Chicago.
Ettco Tool Co., Inc., Brooklyn, N. Y.
Gairing Tool Co., The, Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Independent Pneumatic Tool Co., Chicago.
Jacobs Manufacturing Co., The, Hartford, Conn.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.
Skinner Chuck Co., The, New Britain, Conn.
Union Mfg. Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Universal

Chicago Tool & Engineering Co., Chicago.
Cushman Chuck Co., The, Hartford, Conn.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Independent Pneumatic Tool Co., Chicago.
Jacobs Manufacturing Co., The, Hartford, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcott Chuck Co., Oneida, N. Y.

Chucks, Wrenchless

Chicago Tool & Engineering Co., Chicago.
Conant & Donelson Co., Conway, Mass. (Turning)
Cushman Chuck Co., The, Hartford, Conn.
Ettco Tool Co., Inc., Brooklyn, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Jacobs Manufacturing Co., The, Hartford, Conn.
Millers Falls Co., Millers Falls, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.
Skinner Chuck Co., The, New Britain, Conn.

Chutes—Coal, Ore and Concrete

Beaumont, R. H., Co., Philadelphia, Pa.
Canton Foundry & Machine Co., The, Canton, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
General Wheelbarrow Co., The, Cleveland, Ohio. (Coal only)
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lansing Co., Lansing, Mich.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Red Star Products Corp., Cleveland, Ohio.
Sackett, H. B., Screen & Chute Co., Chicago.
Seaverns, James B., Co., Batavia, Ill.
Sprout, Waldron & Co, Inc., Muncy, Pa.
Truscon Steel Co., Youngstown, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Chutes, Spiral

Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Mathews Conveyor Co., Ellwood City, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Clamps, Adjustable

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Ruleta Co., Inc., New York, N. Y.
Tallman Manufacturing Co., Shelbyville, Ill.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.
Tessmer Machine & Tool Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Clamps and Brackets, Beam or Girder

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Crane Co., Chicago, Ill.
Bond Foundry and Machine Co., Manheim, Pa.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Newbury Manufacturing Co., Monroe, N. Y. (For pipe hangers)
Richards-Wilcox Mfg. Co., Aurora, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Walworth Co., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Clamps, Belt

Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., The, Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Manufacturers' Belt Hook Co., Chicago.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Wood's, T. B., Sons Co., Chambersburg Pa.

Clamps, Bolt, Ship and Dock Builders'

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Tallman Manufacturing Co., Shelbyville, Ill.

Clamps, Body

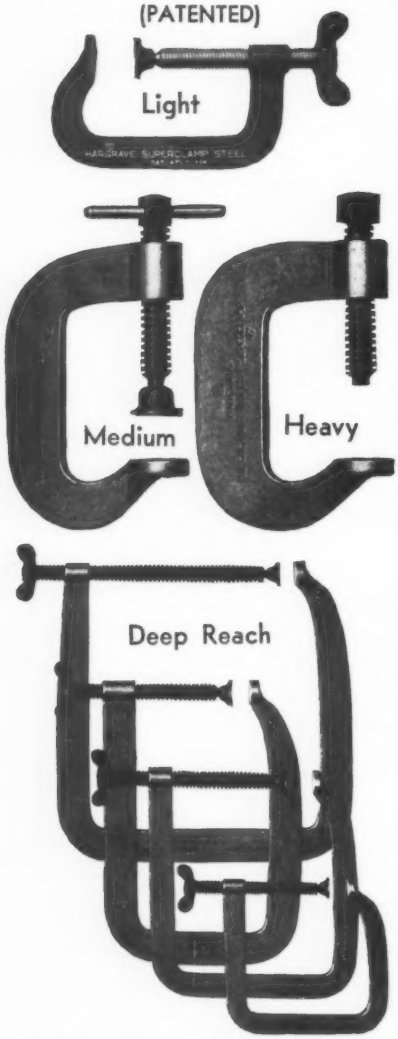
Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Clamps, Boiler

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.

Turn to the "Trade Name Index" for trade names which are not the same as the company's name

HARGRAVE
Forged Steel
SUPERCLAMPS
(PATENTED)



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PROFIT—Cash in on our extensive advertising to the industrial trade; standardize on the line preferred by the larger users and combine your shipments.

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THE CINCINNATI TOOL CO.
Established 1879
Montgomery Ave., Cincinnati, Ohio

Clamps, "C"

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Armstrong Bros. Tool Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Belden Machine Co., The, New Haven, Conn.
Billings & Spencer Co., The, Hartford, Conn.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sargent & Co., New Haven, Conn.
Western Hdwe. Mfg. Co., Milwaukee, Wis.
Williams, J. H., & Co., New York, N. Y.

Clamps, Cabinet Makers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Malleable Iron Fittings Co., Branford, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt, Wm. E., Mfg. Co., New Haven, Conn.
Sargent & Co., New Haven, Conn.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Cable

Chicago Expansion Bolt Co., Chicago, Ill.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Son, Chicago, Ill.
Lamson & Sessions Co., The, Cleveland.
McMillan's, W. H., Sons, New York, N. Y.
Marion Malleable Iron Works, Marion, Ind.
Starline, Inc., Harvard, Ill.
U. S. Expansion Bolt Co., New York, N. Y.
Upson-Walton Co., The, Cleveland, Ohio.

Clamps, Carriage Makers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Channon, J. H., Corp., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Eberhard Mfg. Co., Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sargent & Co., New Haven, Conn.

Clamps, Collar Leak

Skinner, M. B., Co., South Bend, Ind.

Clamps, Column

Cincinnati Tool Co., The, Cincinnati, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Red Star Products Corp., Cleveland, Ohio.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Concrete Construction

Batavia Clamp Co., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Sterling Wheelbarrow Co., Milwaukee, Wis.

Clamps, Eccentric

Batavia Clamp Co., Inc., Batavia, N. Y.
Paasche Air Brush Co., Chicago, Ill.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Girder

(See "Clamps and Brackets, Beam or Girder")

Clamps, Guard Rail

American Steel & Wire Co., Chicago, Ill.
Hubbard & Co., Pittsburgh, Pa.
Upson-Walton Co., The, Cleveland, Ohio.

"A TIGHT CONNECTION ALL THE TIME"
TRADEMARK
NOC-OUT
HOSE CLAMP
U. S. PAT. NO 1,382,813

For every kind of hose connection. They pull up with an even uniform pressure and will not cut or buckle the hose.

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Coffing Hoist Co., Danville, Ill. (Guy wire clamps)
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.

Clamps, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Asch & Co, Inc., New York, N. Y.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Pneumatic Tool Co., New York.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Clamps, Inc., Brooklyn, N. Y.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Everhot Mfg. Co., Maywood, Ill.
Goodall Rubber Co., Philadelphia, Pa.
Harrisburg Stamping Co., Harrisburg, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Home Rubber Co., Trenton, N. J.
Knox Mfg. Co., Philadelphia, Pa.
Linde Air Products Co., The, New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Malleable Iron Fittings Co., Branford, Conn.
Morganmade, Inc., Keene, N. H.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Mulconroy Co., Inc., Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Nunn Brass Works, Rochester, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Smith Welding Equipment Corp., Minneapolis, Minn.
Standard Packing & Rubber Co., New York.
Torchweld Equipment Co., Chicago, Ill.
Wittek Mfg. Co., Chicago, Ill.
Victor Instrument Mfg. Co., Inc., New York, N. Y.

Clamps, Hose, Double

Bastian Blessing Co., Chicago, Ill.
Clamps, Inc., Brooklyn, N. Y.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Goodall Rubber Co., Philadelphia, Pa.
Ideal Clamp Mfg. Co., Inc., Brooklyn, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Mulconroy Co., Inc., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Washburn Co., The, Worcester, Mass.
Wittek Mfg. Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Clamps, Hydrant

Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.

Clamps, Machinists'

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.

UMI

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Drop Forged CLAMPS

5 Styles of "C" Clamps: Toolmaker's Clamps, Machinist's Clamps, Strap Clamps. Drop Forged from special steel, heat treated. Exceptionally stiff and strong. Special Steel screws with double wear threads. Properly proportioned. Accurately made.

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"The Tool Holder People"
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CHICAGO, U. S. A.

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Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Greenfield, Mass.
Malleable Iron Fittings Co., Branford, Conn.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

Clamps, Mitre

Batavia Clamp Co., Inc., Batavia, N. Y.

Clamps, Parallel, Machinists' and Toolmakers'

Adjustable Clamp Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Standard Shop Equipment Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

Clamps, Pipe, Extension

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hubbard & Co., Pittsburgh, Pa.
Walworth Co., New York, N. Y.

Clamps, Pipe Joint

Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Sacramento Pipe Works, Sacramento.
Skinner, M. B., Co., South Bend, Ind.
Smooth-On Manufacturing Co., Jersey City, N. J.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Clamps, Pipe Line

Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Ellis & Ford Mfg. Co., Detroit, Mich.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grabler Mfg. Co., Cleveland, Ohio.
Modern Mfg. Co., The, Cleveland, Ohio.
Skinner, M. B., Co., South Bend, Ind.

Clamps, Pipe Repair

Clow, James B., & Sons, Chicago, Ill.
Mueller Co., Decatur, Ill.
Skinner, M. B., Co., South Bend, Ind.
Smooth-On Manufacturing Co., Jersey City, N. J.
Yarnall-Waring Co., Philadelphia, Pa.

Clamps, Quick Acting

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Rule

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.

Clamps, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Clamps, Sheet Metal Handling

Never Slip Safety Clamp Co., New York.

Clamps, Splicing

Clamps, Inc., Brooklyn, N. Y.
Klein, M., & Sons, Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.
Peck, Stow & Wilcox Co., Southington, Conn.

Clamps, Steel Bar

Adjustable Clamp Co., Chicago, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Batavia Clamp Co., Inc., Batavia, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.

Clamps, Strap

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Crane Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Williams, J. H., & Co., New York, N. Y.

Clamps, Vise

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland.
Dixon Valve & Coupling Co., Philadelphia.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Williams, J. H., & Co., New York, N. Y.
Wright Manufacturing Co., York, Pa.

Clamps, Wire Rope

(See "Clips and Clamps, Wire Rope")

Clamps, Wood Bar

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Clamps, Woodworkers'

Adjustable Clamp Co., Chicago, Ill.
Batavia Clamp Co., Inc., Batavia, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Malleable Iron Fittings Co., Branford, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Taylor, Jas. L., Mfg. Co, Poughkeepsie, N. Y.

Clay, Fire

(See "Fire Clay")

Cleaners, Boiler Flue and Tube

Advance Packing & Supply Co., Chicago.
Allen & Billmyre Co., Inc., New York.
Blue Seal Chemical Co., Roselle, N. J.
Crane Co., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Murray, William H., Richmond, Hill, New York, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pierce, Wm. B., Co., The, Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Self Cleaning Strainer Co., Chicago, Ill.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, Closet

Coleman, Allan J., Chicago, Ill.

Cleaners, Condenser Tube

Garlock Packing Co., The, Palmyra, N. Y.
Hollow Center Packing Co., Cleveland, O.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Pierce, Wm. B., Co., The, Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, File

Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Heller Brothers Co., Newark, N. J.
Nicholson File Co., Providence, R. I.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

Cleaners, Flue

Bate Boiler Efficiency Co., Conshohocken, Pa.
Crane Co., Chicago, Ill.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Doolittle, L. G., Binghamton, N. Y.
Huyette, Paul B., Co., Inc., Philadelphia.
Mall Tool Co., Chicago, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Pierce, Wm. B., Co., The, Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cleaners, Hand

(See "Soap and Cleaners, Hand")

Cleaners, Metal

Baum's Castorine Co., Rome, N. Y.
Blue Seal Chemical Co., Roselle Park, N. J.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Grady Mfg. Co., The, Long Island City, N. Y.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Quigley Co., Inc., New York, N. Y.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Cleaners, Pipe Coil

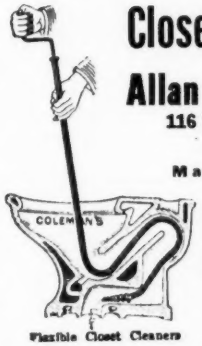
Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Cleaners, Sewer and Drain Pipe, Chemical

Allen, L. B., Inc., Chicago, Ill.
Coleman, Allan J., Chicago, Ill.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Flash Chemical Co., Cambridge, Mass.
Pacific Chemical Co., Los Angeles, Calif.

Closet Cleaners

Allan J. Coleman
116 W. Illinois St.
Chicago
Manufacturer



Flexible Closet Cleaners

4 Grades
All Lengths

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PORTER SWIVEL HEAD
★ Bolt Clipper ★

The new tool—with cutting head set on swivel joint so that it can be used with handles at any angle. Full power regardless of position. Enables operator to get into difficult corners—and around the corners. Cuts bolts, rods, rivets and wires. Write for descriptive circular.

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Coleman, Allan J., Chicago, Ill.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rapid Spring Co., The, Pittsburgh, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Cleaners, Vacuum, Automobile

Allen & Billmyre Co., Inc., New York.
Baker-Hansen Mfg. Co., Alameda, Calif.
Breuer Electric Manufacturing Co., Chicago, Ill.
Electric Blower Co., Boston, Mass.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Metal Specialties Mfg. Co., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

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Baker-Hansen Mfg. Co., Alameda, Calif.
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Ideal Commutator Dresser Co., Sycamore, Ill.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corp., Los Angeles, Calif.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Cleaners, Window

(See "Squeegees")

Cleaning Machines for Metal Parts

(See "Machines, Cleaning, for Metal Parts")

Clevises, Chain

(See "Shackles and Clevises, Chain")

Clippers—Bolt, Rivet and Wire

Belden Machine Co., The, New Haven, Conn.
Carolus Manufacturing Co., Sterling, Ill.
Porter, H. K., Inc., Everett, Mass.
Roberts Manufacturing Co., Everett, Mass.

Clips, Rail

Bethlehem Steel Co., Bethlehem, Pa.

Clips and Clamps, Wire Rope

American Cable Co., Inc., Wilkesbarre, Pa.
American Hoist & Derrick Co., St. Paul.
American Steel & Wire Co., Chicago, Ill.
Clamps, Inc., Brooklyn, N. Y.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The Cleveland, O.
Marion Malleable Iron Works, Marion, Ind.
Mockbee, C. M., Co., Cincinnati, Ohio.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Roebling's, John A., Sons Co., Trenton, N. J.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, Cleveland, Ohio.
U. S. Expansion Bolt Co., New York, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.

Clocks, Engine and Furnace Room

Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Thomas, Seth, Clock Co., Thomaston, Conn.
Tillery's Little Janitor Clock Co., Newark, N. J.

Clocks, Watchmen's

Chicago Watchman's Clock Co., Chicago.
Detex Watchclock Corp., Chicago, Ill.
Simplex Time Recorder Co., Gardner, Mass.

Closers, Door

(See "Door Openers and Closers")

Cloth, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.
Safety Equipment Service Co., Cleveland.
Standard Asbestos Mfg. Co., of Chicago, Chicago, Ill.
United States Asbestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Cloth, Brattice, Fireproof and Waterproof

Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Holcomb Safety Garment Co., Chicago, Ill.
Safety Equipment Service Co., Cleveland.
Upson-Walton Co., The, Cleveland, Ohio.

Cloth, Emery

(See "Paper and Cloth—Sand, Emery, Garnet and Flint")

WIRE ROPE CLIPS

"DREDNAUT"
DROP FORGED
HOT GALVANIZED
(ILLUSTRATED)
OR THE
"U-W" WIRE ROPE CLIPS

SEND FOR STEEL PRODUCTS CATALOG

The Upson-Walton Co.
1306 WEST 11TH ST., CLEVELAND, OHIO
Established 1871

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Buffalo Wire Works Co., Inc., Buffalo.
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Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Northwestern Barb Wire Co., Sterling, Ill.
Roebling's, John A., Sons Co., Trenton, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

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Goodall Rubber Co., Philadelphia, Pa.

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Non-Inflammable
or
Airtight & Waterproof

The heavy jute yarns, closely woven, combined with our special fireproofing process assure jobbers of U-W Brattice Cloth of a line equal to any on the market.

The airtight and waterproof brattice cloths are furnished with either a jute or cotton duck base.

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The Upson-Walton Co.
Established 1871
1306 WEST 11TH ST., CLEVELAND, O.

PORTER
Bolt Clippers

LARGEST CLIPPER
CUTS BOLTS
THIS SIZE

Powerful, portable, two-hand cutting tools. One quick cut on bolts, rod, wire or chain—saves time, saves labor. Used in production and in maintenance, repairs, construction and dismantling. Special jaws for splitting nuts which cannot be removed with wrench.

A size and type of jaw for every requirement. Sold by supply houses and jobbers everywhere. Write for descriptive folder.

H. K. PORTER, INC
EVERETT - MASS

PORTER COMPACT
Bolt Clipper

Tool is no bigger than the flat of your hand but has tremendous cutting power. Operates with ratchet wrench. Fits tool kit. Easy to use in tight places. Gets into channels of auto frames, etc. Cuts bolts, cuts rods, splits nuts.

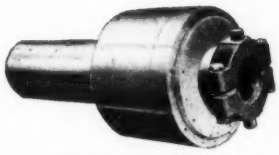
Write for descriptive circular.

H. K. PORTER, INC
EVERETT MASS

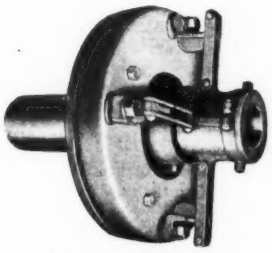
TRADE MARK
Kinney
REG. U. S. PAT. OFF.

Friction Clutches

Cut-off or Sleeve Type



Fully Enclosed Clutches.
Single Point Adjusting from 1 to 200 H.P. per 100 R.P.M.



Open Arm Mill Type.
From 2 to 600 H.P. per 100 R.P.M.

High Speed or Slow Speed Clutches to fit the installation

Sleeves — Full ball bearing, bronze bushed, or capillary wick oiled cast iron for split or solid pulley, gear, or sprocket.

Friction Surfaces — Metal to metal lubricated or dry burn-proof asbestos to suit the work.

Quick positive or slow easy picking up of the load as required.

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Hilliard Corp., The, Elmira, N. Y.
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Johnson, Carlyle, Machine Co., The, Manchester, Conn.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
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Schultz, A. L., & Son, Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
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Wood's, T. B., Sons Co., Chambersburg, Pa.

Clutches, Friction

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Conway Clutch Co., The, Cincinnati, Ohio.
Diamond Iron Works, Inc., Minneapolis.
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Edgemont Machine Co., The, Dayton, Ohio.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Gifford-Wood Co., Hudson, N. Y.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Johnson, Carlyle, Machine Co., The, Manchester, Conn.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Kinney Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
Mason, Volney W., & Co., Boston, Mass.
Medart Co., St. Louis, Mo.
Miley, L. J., Co., Inc., Chicago, Ill.
Moore-Master Mfg. Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
O. K. Clutch & Machinery Co., Columbia, Pa.
Reeves Pulley Co., Columbus, Ind.
Rockford Drilling Machine Co., Rockford, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
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Schultz, A. L., & Son, Chicago, Ill.
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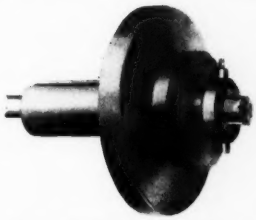
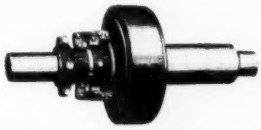
Stephens-Adamson Mfg. Co., Aurora, Ill.

MODERN FRICTION CLUTCHES



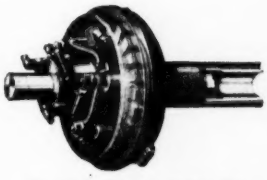
DIAMOND "D" SAFETY DISC FRICTION CLUTCH

A fully enclosed friction clutch adapted for the most severe service. Compact — rated to allow 100% overload —one-point adjustment. All parts interchangeable.



DODGE SOLID FRICTION CLUTCHES

A rugged and efficient friction clutch of the friction disc type. Simple in construction—easy to adjust.



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Split Construction permits easy installation and facilitates removal or replacement of parts. Made in capacities from 6 to 1000 horsepower.

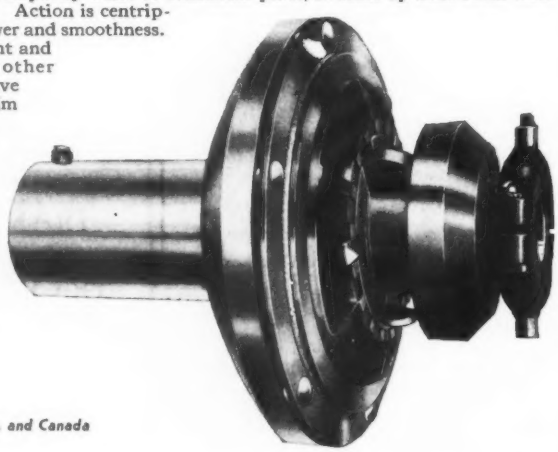
DODGE
MISHAWAKA

Dodge Manufacturing Corporation
Mishawaka, Indiana

THIS CONWAY DISC IS A SPLENDID CLUTCH

—outstanding on every phase of power transmission

Engineers and designers alike find The Conway Clutch ideally suited to every power control requirement. Compactly built of minimum parts, it takes up little room and requires little attention. Action is centripetal—unsurpassed in power and smoothness. Easy engagement, instant and complete release are other characteristics that have caused users to acclaim the Conway as "the last word in Friction Clutches."



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Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
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Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Home Rubber Co., Trenton, N. J.
Johnson, Carlyle, Machine Co., The, Manchester, Conn.
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Magnetic Manufacturing Co., Milwaukee.
Toledo Wheelbarrow Co., The, Toledo, O.

Coating, Boiler

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Carter Paint Co., Liberty, Ind.
Goheen Corp. of New Jersey, Newark, N. J.
Green, A. P., Fire Brick Co., Mexico, Mo.
Menaugh & Co., Chicago, Ill.

Coating, Gear and Pinion

(See "Grease and Coating, Gear and Pinion")

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Goheen Corp. of New Jersey, Newark, N. J.
Horn, A. C., Co., Long Island City, N. Y.
Menaugh & Co., Chicago, Ill.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.

Coating, Roofing

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Black Diamond Paint & Varnish Co., The, Cincinnati, Ohio.
Carter Paint Co., Liberty, Ind.

Edgemont *Friction* *Clutches*

"YOU CAN'T GO WRONG . . . THEY ARE SERVICE TESTED"

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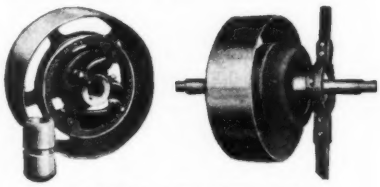

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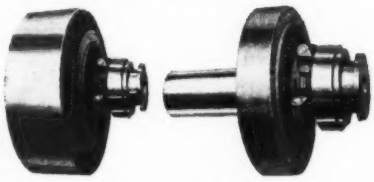

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DAYTON, O.

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Sero Specialty Co., Cleveland, Ohio.
Sherwin-Williams Co., Cleveland, Ohio.

Cocks, Acid

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Dallett Co., The, Philadelphia, Pa.
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Lunkenheimer Co., The, Cincinnati, Ohio.
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National Lead Co., New York, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Cocks, Air

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Dallett Co., The, Philadelphia, Pa.
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Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tessmer Machine & Tool Co., Detroit.
Walworth Co., New York, N. Y.

Cocks, Blow-off

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Judson Governor Co., The, Rochester, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Tessmer Machine & Tool Co., Detroit.
Walworth Co., New York, N. Y.
Yarnall-Waring Co., Philadelphia, Pa.

Cocks or Stops, Brine

Crane Co., Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Cocks or Stops, Corporation and Waterworks

Atlas Brass Foundry Co., The, Columbus, Ohio.
Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks or Stops, Curb

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Cylinder

Edna Brass Mfg. Co., The, Cincinnati, O.
General Brass Co., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roberts Brass Mfg. Co., The, Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Cocks, Dial

Belfield, H., Co., Philadelphia, Pa.
Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Williams, D. T., Valve Co., The, Cincinnati.

Cocks, Gas

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Michigan Smelting & Refining Co., Division of Bohn Aluminum & Brass Corp., Detroit, Mich.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Roper, Geo. D., Corp., Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Gas, High Pressure

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Knox Mfg. Co., Philadelphia, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
National Transit Pump & Machine Co., Oil City, Pa.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

Cocks and Valves, Gas, Natural

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Cocks, Gas Meter

Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Gas Service

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Cocks, Gasoline

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Merco Nordstrom Valve Co., San Francisco, Calif.
Morrison Bros., Dubuque, Iowa.
Mueller Brass Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Williams, D. T., Valve Co., The, Cincinnati.
Walworth Co., New York, N. Y.

Cocks, Gauge

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.

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Essex Brass Corp., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Hills-McCanna Corp., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Nason Manufacturing Co., New York.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Rockford Brass Works, Rockford, Ill.
Swift Lubricator Co., Elmira, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams Gauge Co., The, N. S, Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Cocks, Gauge, Compression

American Injector Co., Detroit, Mich.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Swift Lubricator Co., Elmira, N. Y.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.

Cocks, Gauge, Self-closing

Bordo, L. J., Co., Inc., Glenside, Pa.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Haydenville Co., The, Haydenville, Mass.
Hills-McCanna Corp., Chicago, Ill.
Huyette, Paul B., Co., Inc., Philadelphia.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Nason Manufacturing Co., New York, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Cocks, Hose

American Foundry & Mfg. Co., St. Louis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Cocks, Hydrant

Atlas Brass Foundry Co., The, Columbus, Ohio.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Hydraulic

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., & Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Mercoid Corp., The, Chicago, Ill.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.

Cocks, Indicator

Belfield, H., & Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Consolidated Brass Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Iron

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Judson Governor Co., The, Rochester, N.Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth, Co., New York, N. Y.

Cocks and Faucets, Lock

Belfield, H., & Co., Philadelphia, Pa.
Cordley & Hayes, New York, N. Y.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Morrison Bros., Dubuque, Iowa.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.

Cocks, and Valves, Mixing

Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Empire Brass Mfg. Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Cocks, Oil

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Merco Nordstrom Valve Co., San Francisco, Calif.
National Transit Pump & Machine Co., Oil City, Pa.
Parker Appliance Co., The, Cleveland, O.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rockford Brass Works, Rockford, Ill.

Cocks and Faucets, Oil Wagon and Storage Tank

Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Homstead Valve Mfg. Co., Coraopolis, Pa.
Morrison Bos., Dubuque, Iowa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rauch Manufacturing Co., The, Galena, Kans.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rockford Brass Works, Rockford, Ill.

Cocks, Pet

American Injector Co., Detroit, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Belfield, H., Co., Philadelphia, Pa.
Binks Manufacturing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
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Haydenville Co., The, Haydenville, Mass.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Plug

Atlas Brass Foundry Co., The, Columbus, Ohio.
Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Harris, Arthur, & Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Judson Governor Co., The, Rochester, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Relief

Binks Manufacturing Co., Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.

Frederick Iron & Steel Co., The, Frederick, Md.
General Brass Co., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roberts Brass Mfg. Co., The, Detroit.
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Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks and Faucets, Sill, Compression

Atlas Brass Foundry Co., The, Columbus, Ohio.
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Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
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Cocks, Steam

American Injector Co., Detroit, Mich.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Inc., Glenside, Pa.
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Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
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Hays Manufacturing Co., Erie, Pa.
Homestead Valve Co., Coraopolis, Pa.
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Lunkenheimer Co., The, Cincinnati, Ohio.
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Merco Nordstrom Valve Co., San Francisco, Calif.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roberts Brass Mfg. Co., The, Detroit.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Steam Gauge

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Fisher Governor Co., The, Marshalltown, Iowa.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Huyette, Paul B., Co., Inc., Philadelphia.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roberts Brass Mfg. Co., The, Detroit.
Sargent Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cocks, Stop, and Stop and Waste, Compression

Atlas Brass Foundry Co., The, Columbus, Ohio.
Baltimore Valve Corp., Baltimore, Md.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.

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Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Cocks, Stop, and Stop and Waste, Ground Key

Atlas Brass Foundry Co., The, Columbus, Ohio.
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General Brass Co., Detroit, Mich.
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Hays Manufacturing Co., Erie, Pa.
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Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
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Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.

Cocks, Stop, Self-closing

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Cocks, Three-Way

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Judson Governor Co., The, Rochester, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Merco Nordstrom Valve Co., San Francisco.
Mueller Co., Decatur, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
Nunn Brass Works, Rochester, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Coils, Pipe

(See "Bends and Coils, Pipe")

Collars, Shaft

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Pulley Co., The, Philadelphia.
Bond Foundry and Machine Co., Manheim, Pa. (Solid and split)
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Rock Island Mfg. Co., Rock Island, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Collectors, Exhaustors (or Blower System) for Shavings and Dust

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Blower Corp., Detroit, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burt Manufacturing Co., The, Akron, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Dallet Co., The, Philadelphia, Pa.
Electric Blower Co., Boston, Mass.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Ruemelin Mfg. Co., Milwaukee, Wis.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.

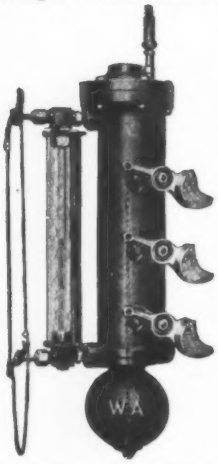
Collets

Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Planer Co., The, Cincinnati, O.
Gisholt Machine Co., Madison, Wis.
Hannifin Manufacturing Co., Chicago, Ill.
Moseley Lathe Co., The, Elgin, Ill.
Scully-Jones & Co., Tool Division, Chicago.
Sutton Tool Co., Detroit, Mich.
Union Twist Drill Co., Athol, Mass. (Milling machines)

Want More Help?
Write
MILL SUPPLIES

Alarm Water Columns

Alarm Water Columns blow shrill whistle when water reaches low or high danger level in boiler. Made for all sizes of boilers.



TRYCOCK

The "Crescent" Trycock is absolutely non-leaking. Double life due to reversible valve and seat of special metal and easily accessible. Suitable for all Power Boilers and Water Columns.

WATER GAUGE

When a glass breaks on this Water Gauge, one pull of the chain shuts off instantly both steam and water. In replacing new glass its special "Quick Change" feature is a time and money saver. Fits all Boilers and Water Columns.

KLEERVU PROTECTOR—Appealing to those responsible for safety, our "Kleervu" Gauge Glass Protector for Water Gauges on boilers, tanks, etc., prevents injury to operators from flying pieces of exploding gauge glasses, by confining all broken glass within the Protector.

WRIGHT AUSTIN

316 West Woodbridge

DETROIT - - - - - - - - - - MICHIGAN

Columns, Water

Bordo, L. J., Co., Inc., Glenside, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Sargent Co., Chicago, Ill.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Columns, Water, Safety

Bordo, L. J., Co., Inc., Glenside, Pa.
Huyette, Paul B., Co., Inc., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Compasses, Carpenters' and Machinists'

Brown & Sharpe Mfg. Co., Providence, R.I.

Compounds, Anti-Freezing, for Fire Extinguishers and Buckets

Allen, W. D., Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wills Products Co., The, New York, N. Y.

Compounds, Boiler

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Sand Banum Co., Inc., New York, N. Y.
Arrow Boiler Compound Co., St. Louis, Mo.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Blue Seal Chemical Co., Roselle, N. J.
Crane Co., Chicago, Ill.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Duryea Manufacturing Co., Bayonne, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Imperial Floor Co., Inc., Rochester, N. Y.
Johns-Manville Sales Corp., New York.
Master Lubricants Co., Philadelphia, Pa.
Messmer Brass Co., St. Louis, Mo.
Pacific Chemical Co., Los Angeles, Calif.
Sero Specialty Co., Cleveland, Ohio.
Smooth-On Manufacturing Co., Jersey City, N. J.
Superior Flake Graphite Co., Chicago, Ill.

Compounds, Boiler and Radiator Sealing

Baum's Castorine Co., Rome, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Franklin Oil & Gas Co., The, Bedford, O.
Key Boiler Equipment Co., East St. Louis, Ill.
Smooth-On Manufacturing Co., Jersey City, N. J.

Compounds and Fluxes, Brazing

Air Reduction Sales Co., New York, N. Y.
Anti-Borax Compound Co., Fort Wayne, Ind.
Atkins, E. C., & Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Cortland Welding Compound Co., Cortland, N. Y.
Covel-Hanchett Co., Big Rapids, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Dockson, C. H., Co., Detroit, Mich.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products, Inc., The, New York.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Superior Flake Graphite Co., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Compounds, Buffing and Polishing

Dallett Co., The, Philadelphia, Pa.
Harrison & Co., Haverhill, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Matchless Metal Polish Co., The, Chicago.
Quigley Co., Inc., New York, N. Y.

Compounds, Case Hardening and Tempering

Anti-Borax Compound Co., Fort Wayne, Ind.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Franklin Oil & Gas Co., The, Bedford, O.
Stuart, D. A., Oil Co., Chicago, Ill.
Technical Products Co., Pittsburgh, Pa.

Compounds and Lubricants, Commutator

Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Metalene Chemical Co., The, Cleveland, O.
Standard Oil Co., of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.
Technical Products Co., Pittsburgh, Pa.

Compounds and Oils, Core

Cook's, Adam, Sons, Inc., Linden, N. J.
Standard Oil Co. of New York, The, New York, N. Y.
Superior Flake Graphite Co., Chicago, Ill.
Stuart, D. A., Oil Co., Chicago, Ill.

Compounds and Oils—Cutting, Drilling, Threading, Milling, Metal Drawing

Armstrong Manufacturing Co., Bridgeport, Conn.
Atkins, E. C., & Co., Indianapolis, Ind.
Baum's Castorine Co., Rome, N. Y.
Borden Co., The, Dana, Ohio.
Cook's, Adam, Sons, Inc., Linden, N. J.
Duryea Manufacturing Co., Bayonne, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Keystone Lubricating Co., Philadelphia.
Lubriplate Corp., New York, N. Y.
Magie Bros., Chicago, Ill.
Master Lubricants Co., Philadelphia, Pa.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Ridge Tool Co., The, Elyria, Ohio.
Sero Specialty Co., Cleveland, Ohio.
Standard Oil Co. of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
Sutton, C. N., Chemical Co., Chicago, Ill.

Compounds, Elevator

Cook's, Adam, Sons, Inc., Linden, N. J.
Lubron Co., The, Everett, Mass.

Compounds, Grinding

Baum's Castorine Co., Rome, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dallett Co., The, Philadelphia, Pa.
Franklin Oil & Gas Co., The, Bedford, O.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass. (Also lapping compounds)
Master Lubricants Co., Philadelphia, Pa.
Pittsburgh Crushed Steel Co., Pittsburgh.
Stuart, D. A., Oil Co., Chicago, Ill.

Compounds, Pipe Joint

(See "Cement or Compound, Pipe Joint")

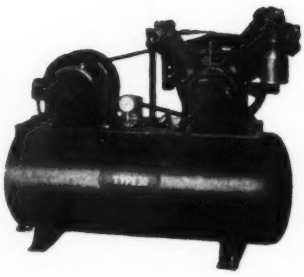
Compounds, Sewer Pipe

(See "Cement or Compound, Sewer Pipe")

Compounds, Valve Grinding

Baum's Castorine Co., Rome, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Clover Mfg. Co., Norwalk, Conn.
Fisher Governor Co., The, Marshalltown, Iowa.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass.
Lunkenheimer Co., The, Cincinnati, Ohio.

TYPE 30 Air Compressors



These compact, efficient units are suitable for many applications where air or gas is to be compressed.

Capacities—1 to 80 cfm. Pressures—5 to 1,000 pounds per square inch. Also 1,000 sizes and types of larger vacuum pumps and compressors from which to choose.

INGERSOLL-RAND
11 BROADWAY, NEW YORK, N. Y.

Compounds and Paints, Waterproofing

American Asphalt Paint Co., Chicago, Ill.
Carter Paint Co., Liberty, Ind.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ensign Products Co., Cleveland, Ohio.
Goodrich, B. F., Co., The, Akron, Ohio.
Goheen Corp. of New Jersey, Newark, N.J.
Horn, A. C., Co., Long Island City, N. Y.
Johns-Manville Sales Corp., New York.
Menaugh & Co., Chicago, Ill.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Pittsburgh Crushed Steel Co., Pittsburgh.
Protection Products Co., Detroit, Mich.
Quigley Co., Inc., New York, N. Y.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Technical Products Co., Pittsburgh, Pa.
Truscon Steel Co., Youngstown, Ohio.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York, N. Y.

Compounds, Water Softening

(See "Compounds, Boiler")

Compounds or Flux, Welding

(See "Flux, Foundry and Welding")

Compressors, Air

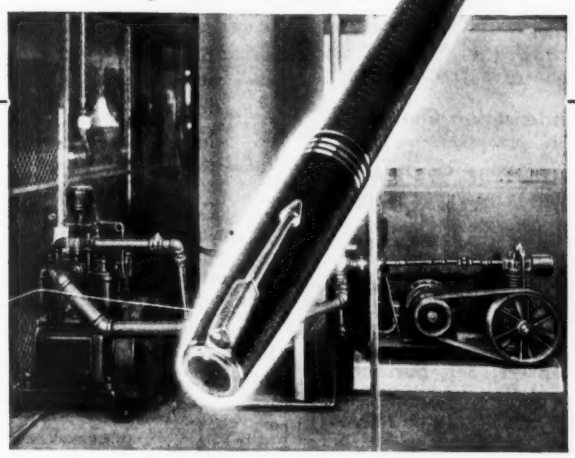
Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Baker-Hansen Mfg. Co., Alameda, Calif.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Dayton Air Compressor Co., The, Dayton.
Dumore Co., The, Racine, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
General Electric Co., Schenectady, N. Y.
H. D. B. Corporation, Chicago, Ill.
Hudson-Sharp Machine Co., Green Bay, Wis.
Imperial Brass Manufacturing Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kellogg Manufacturing Co., Rochester, N. Y.
Machine Shop Equipment Co., Grove City, Pa.
Meier Electric & Machine Co., The, Indianapolis, Ind.
Miller Improved Gas Engine Co., Springfield, Ohio.
Mott Sand Blast Mfg. Co., Inc., Chicago.
National Transit Pump & Machine Co., Oil City, Pa.
O. K. Clutch & Machinery Co., Columbia, Pa.
Paasche Airbrush Co., Chicago, Ill.
Quincy Compressor Co., Quincy, Ill.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Saylor-Beall Manufacturing Co., Detroit.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Spraco, Inc., Somerville, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Compressors, Air, for Garages

American Chain Co., Bridgeport, Conn.
American Steam Pump Co., Battle Creek, Mich.
Baker-Hansen Mfg. Co., Alameda, Calif.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dayton Air Compressor Co., The, Dayton.
DeVilbiss Co., The, Toledo, Ohio.
H. D. B. Corporation, Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Kellogg Manufacturing Co., Rochester, N. Y.
Machine Shop Equipment Co., Grove City, Pa.
National Brake & Electric Co., Milwaukee.
Paasche Airbrush Co., Chicago, Ill.
Quincy Compressor Co., Quincy, Ill.
Saylor-Beall Manufacturing Co., Detroit.

We save space and money with Curtis Compressors

writes the
PARKER PEN COMPANY
Janesville, Wisconsin *



MR. D. A. McLAUGHLIN, Superintendent of the Parker Pen Company, writes:

"Our two Curtis Compressors not only save space—are more efficient, quiet and satisfactory than the equipment they replaced, but they deliver compressed air at the remarkably low cost of 60 cubic feet a minute for 12 cents an hour. *The maintenance cost of these compressors is negligible. It has not even been necessary to remove carbon since their installation over a year ago."*

The experience of the Parker Pen Company is typical of many companies which are enjoying low cost Curtis Compressed Air Service.

*A complete report by D. A. McLaughlin, Superintendent of the Parker Pen Company on this Curtis installation will be of vital interest to production executives. Write for your copy today.

CURTIS FEATURES: Carbon-Free Valves — Timken Bearings — Cooled Air Intake—Centro-Ring Oiling.

CURTIS PNEUMATIC MACHINERY COMPANY
1928 Kienlen Avenue, St. Louis, Missouri — 5518V Hudson Terminal, New York City

CURTIS COMPRESSORS—AIR HOISTS—I-BEAM CRANES and TROLLEYS

Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.

Compressors, Air, Hydraulic

Binks Manufacturing Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Union Steam Pump Co., Battle Creek, Mich.

Compressors, Air, Portable

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Dayton Air Compressor Co., The, Dayton.
DeVilbiss Co., The, Toledo, Ohio.
General Electric Co., Schenectady, N. Y.
H. D. B. Corporation, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Kellogg Manufacturing Co., Rochester, N. Y.
Metal Specialties Mfg. Co., Chicago, Ill.
Milburn, Alexander, Co., The, Baltimore.
Mott Sand Blast Mfg. Co., Inc., Chicago.
O. K. Clutch & Machinery Co., Columbia, Pa.
Paasche Airbrush Co., Chicago, Ill.
Quincy Compressor Co., Quincy, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.
Worthington Pump & Machinery Corp., Harrison, N. J.

Compressors, Ammonia

Brunswick-Kroeschell Co., New Brunswick, N. J.
Ingersoll-Rand Co., New York, N. Y.
Worthington Pump & Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Compressors, Gas

Allen & Billmyre Co., Inc., New York.
Allis-Chalmer Manufacturing Co., Milwaukee, Wis.
Chicago Pneumatic Tool Co., New York.
Dayton Air Compressor Co., The, Dayton.
De Laval Steam Turbine Co., Trenton, N. J.
General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Miller Improved Gas Engine Co., Springfield, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Paasche Airbrush Co., Chicago, Ill.
Roots-Connersville-Wilbraham (Division of International-Statcey Corp.), Connersville, Ind.
Worthington Pump & Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Condensation Outfits

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Harris, Arthur, & Co., Chicago, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Worthington Pump & Machinery Corp., Harrison, N. J.

Condensers, Jet, Surface and Barometric

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bartlett Hayward Co., The Baltimore, Md.
Chicago Pneumatic Tool Co., New York.
Filer & Stowell Co., The, Milwaukee, Wis.
Ingersoll-Rand Co., New York, N. Y.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump & Machinery Corp., Harrison, N. J.

Conduit, Underground Steam Line

Badger, E. B., & Sons Co., Boston, Mass.
Fretz-Moon Tube Co., Inc., East Butler, Pa.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Connections, Gas Meter

Crane Co., Chicago, Ill.
Mueller Co., Decatur, Ill.

Connections, Pipe Line

Barco Manufacturing Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
National Lead Co., New York, N. Y.
Reading Steel Casting Co., Bridgeport, Conn.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sacramento Pipe Works, Sacramento, Cal.
Taylor Forge & Pipe Works, Chicago, Ill.

Connections, Pipe, Offset Reducing

Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.

Connections, Union

(See "Unions")

Connections, Water Meter

Crane Co., Chicago, Ill.
Hersey Manufacturing Co., Boston, Mass.
Mueller Co., Decatur, Ill.

Connectors, Cable, Detachable

Dallet Co., The, Philadelphia, Pa.

Control, Oil, Constant Level

Lunkenheimer Co., The, Cincinnati, Ohio.

Controllers, Electric

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Huhn Manufacturing Co. Bronx, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Philadelphia Gear Works, Philadelphia.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Uehling Instrument Co., Paterson, N. J.

Controllers, Fan Engine

(See "Regulators, Controllers or Governors—Fan Engine")

Controllers, Power Pump

(See "Governors or Regulators, Pump")

Controllers, Water Level

(See "Regulators, Water Level")

Controls, Draft or Combustion

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Leeds & Northrup Co., Philadelphia, Pa.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.

Conveyors, Apron

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Cambridge Wire Cloth Co., Cambridge, Md.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., Columbus, O.
Link-Belt Co., Chicago, Ill.
Manufacturers Equipment Co., The, Dayton, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mathews Conveyor Co., Ellwood City, Pa.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Michigan Wire Cloth Co., Detroit, Mich.
New York Belting & Packing Co., Passaic, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Conveyors, Belt

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Baumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cambridge Wire Cloth Co., Cambridge, Md.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee.
Godfry Conveyor Co., Elkhart, Ind.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hettrick Manufacturing Co., The, Toledo.
Home Rubber Co., Trenton, N. J.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Manufacturers Equipment Co., The, Dayton, Ohio.
Mathews Conveyor Co., Ellwood City, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
Mountville Mfg. Co., Mountville, Pa.
New York Beting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Conveyors, Bucket

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee, Wis.
Godfrey Conveyor Co., Elkhart, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
New York Belting & Packing Co., Passaic, N. J.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.

DALWELD
DETACHABLE CABLE
CONNECTORS

Good Welding Practice recommends standardizing with Dalweld Detachable Cable Connectors.

Make your stock complete with these quick-acting safe power, time and cable-saving connectors.

"Soon to be standard everywhere."

See also Pages 61, 77, 125 and 154 for other items.

Manufactured by
THE DALLETT COMPANY
PHILADELPHIA

Stephens-Adamson Manufacturing Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors—Coal, Gravel and Sand

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Beaumont, R. H., Co., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Godfrey Conveyor Co., Elkhart, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Huron Industries, Inc., Alpena, Mich.
Industrial Brownhoist Corp., Cleveland.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mey Chain Belt Co., Buffalo, N. Y.
Palmer-Bee Co., Detroit, Mich.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Conveyors, Gravity

Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Matthews Conveyor Co., Ellwood City, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Lumber and Sawmill

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Memphis Machine Works, Memphis, Tenn.
Mey Chain Belt Co., Buffalo, N. Y.
Miller Machine Works, Springs, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Merchandise

Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Imperial Belting Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Palmer-Bee Co., Detroit, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Starline, Inc., Harvard, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Overhead

Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Osborn Manufacturing Co., The, Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Products, Inc., New Castle, Ind.
Wright Manufacturing Co., York, Pa.

Conveyors, Portable, for Loading Cars and Stacking

Cardwell Machine Co., The, Richmond, Va.
Diamond Iron Works, Inc., Minneapolis, Minn.
Dodge Manufacturing Corp., Mishawaka, Ind.
Economy Engineering Co., Chicago, Ill.
Fairfield Engineering Co., The, Marion, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McKinney-Harrington Conveyor Co., North Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Republic Rubber Co., The, Cincinnati, O.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Screw and Spiral

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mey Chain Belt Co., Buffalo, N. Y.
Palmer-Bee Co., Detroit, Mich.
Ruemelin Mfg. Co., Milwaukee, Wis.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adams Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Steel Belt

Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Cyclone Fence Co., Waukegan, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Hobbs, Clinton E., Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Conveyors, Steel Pan

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairfield Engineering Co., The, Marion, O.
Filer & Stowell Co., The, Milwaukee, Wis.
Industrial Brownhoist Corp., Cleveland, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Manufacturers Equipment Co., The, Dayton, Ohio.
R. S. Products Corp., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wright Manufacturing Co., York, Pa.

Conveyors, Wire Cable

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Cable Co., Inc., Wilkes-Barre, Pa.
American Steel & Wire Co., Chicago, Ill.
Beaumont, R. H., Co., Philadelphia, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

For "Trade Names" Which Differ from The Company Name See the "Trade Name Index"

"Trade Names" Are Not Shown in the "Trade Name Index" Where They Are the Same as the Company's Name or Where the Company's Name Constitutes the First Part of the Trade Name.

If you do not find a trade name in the "Trade Name Index," look for the company's name under the product heading

ESICO

Industrial Electric Soldering Irons

The largest assortment made by any one manufacturer

Plug Tip Irons

No. 55—65 watts
Tip ⅜" in dia.

No. 95—100 watts
Tip ⅜" in dia.

No. 125—130 watts
Tip ⅝" in dia.

No. 205—200 watts
Tip ⅝" in dia.

No. 355—310 watts
Tip ⅞" in dia.

No. 505—500 watts
Tip 1⅛" in dia.

Screw Tip Irons

No. 56
65 watts
Tip ½" dia.

No. 101
85 watts
Tip ½" in dia.

No. 121
120 watts
Tip ⅞" in dia.

No. 201
200 watts
Tip ⅞" in dia.

No. 350
350 watts
Tip 1⅜" in dia.

No. 500
500 watts
Tip 1⅝" in dia.

Used by Industrials everywhere. A profitable line for the distributor.

Backed by a policy that calls for 100% Cooperation

ELECTRIC SOLDERING IRON CO., Inc.
342 W. 14th Street NEW YORK, N. Y.

Coolers, Generator

Schutte & Koerting Co., Philadelphia, Pa.
Strandwitz & Scott, Inc., Camden, N. J.

Coolers and Filters, Water

American Filter Co., Milwaukee, Wis.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Clow, James B., & Sons, Chicago, Ill.
Cordley & Hayes, New York, N. Y.
Jewett Refrigerator Co., Inc., The, Buffalo, N. Y.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Scaife, W. B., & Sons Co., Oakmont, Pa.

Copper Rods, Bars and Sheets

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York, N. Y.
Merchant & Evans Co., Philadelphia, Pa.
National Copper & Smelting Co., Cleveland.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.

Coppers and Irons, Soldering

Barrett, Wm. L., Co., Bristol, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Dunton, M. W., Co., The, Providence, R. I.
Electric Soldering Iron Co., Inc., New York.
Everhot Mfg. Co., Maywood, Ill.
Hexagon Electric Appliance Corp., Roselle, N. J.
Justrite Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, New York.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Merchant & Evans Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Turner Brass Works, The, Sycamore, Ill.
Victor Instrument Mfg. Co., Inc., New York, N. Y.
Vulcan Electric Heater Corp., Lynn, Mass.

Coppers, Soldering, and Blow Torch Combined

Bastian-Blessing Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.

Cord, Wick and Yarn—Asbestos

Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Goodall Rubber Co., Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Rhopac Products Corp., Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc, Manheim, Pa.

Cord, Electric Tool

American Steel & Wire Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Simplex Wire & Cable Co., Boston, Mass.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.

Cordage, Braided

Massasoit Mfg. Co., Fall River, Mass.
Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Cores and Cases, Flexible Shaft

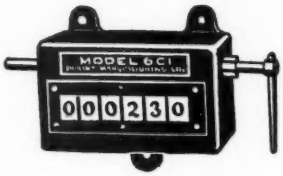
Binghamton Flexible Shaft Co., Johnson City, N. Y.

Cotter Pins and Spring Keys

American Chain Co., Inc., Bridgeport, Conn.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hindley Manufacturing Co., Valley Falls, R. I.
Lamson & Sessions Co., The, Cleveland, O.
Leard, William, Co., Inc., The, New Brighton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Rochester Machine Screw Co., Rochester, N. Y.
Smith, F. P., & Co., Sharon Hill, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Washburn Co., The, Worcester, Mass.
Western Wire Products Co., St. Louis, Mo.

Cotton, Calking, Spun

Heller, W. C., & Co., Montpelier, Ohio.
Massasoit Mfg. Co., Fall River, Mass.



Taking the Count

Is the function of *Productimeters*. Attached to machines and conveyors they give an accurate count or lineal measure of almost any product. They will count strokes on pumps, engines, and compressors.

Productimeters are available in a great variety of models, including stroke and rotary counters, double deck types for quick handling and totalizing of short runs, predetermined types for stopping production at a preset total, and electric counters with feather-touch contactors or photo cells.

Send for catalog or for advice on counting or measuring problems.

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1919 N. Buffum St. Milwaukee, Wis. — 178 Eddy St. Providence, R. I.

Productimeters
THE SPEEDOMETERS OF INDUSTRY

Counters, Revolution

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bristol Co., The, Waterbury, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Durant Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Hart, R. E., Mfg. Co., Battle Creek, Mich.
Millers Falls Co., Greenfield, Mass.
Veeder-Root, Inc., Hartford, Conn.

Counterbores

Alvord-Polk Tool Co., Millersburg, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Barnes Drill Co., Rockford, Ill.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Kelly Reamer Co., Cleveland, Ohio.
Latrobe Tool Co., Latrobe, Pa.
Mechanical Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Production Tool Co. of America, Detroit.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Countershafts

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Pulley & Shafting Co., Chicago.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Gisholt Machine Co., Madison, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Royersford Foundry & Machine Co, Inc., Royersford, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Countersinks

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Goodell-Pratt Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass. (Auto brake lining countersinks)
Whitman and Barnes, Inc., Detroit, Mich.

Counting Machines

(See "Machines, Counting)

Couplings, Casing

Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Walworth Co., New York, N. Y.

Couplings, Copper Tube

Devlin, Thos., Mfg. Co., Burlington, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Parker Appliance Co., The, Cleveland, O.
Prier Brass Mfg. Co., Kansas City, Mo.

Couplings, for Flexible Metal Hose

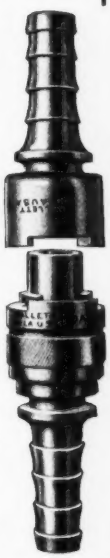
Atlantic Metal Hose Co., Inc., New York.
Chicago Tubing & Braiding Co., Maywood, Ill.
Dixon Valve & Coupling Co., Philadelphia.
Fisher Governor Co., The, Marshalltown, Iowa.
Goodall Rubber Co., Philadelphia, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Co., Inc., Philadelphia, Pa.
Paasche Airbrush Co., Chicago, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Republic Rubber Co., The, Cincinnati, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Simplex Spray Equipment Co., Chicago, Ill.

Couplings, Gas and Oil Line

Bethlehem Steel Co., Bethlehem, Pa.
Chicago Tubing & Braiding Co., Maywood, Ill.
Commonwealth Brass Corp., Detroit, Mich.

DALBO
HOSE COUPLINGS

Dalbo Dealers are proud to be identified with products stamped "DALLETT". For instance, here's a Coupling, machined from solid bar stock which you can supply in Brass or Steel—rust-proofed, and we stand back of you in guaranteeing it to be the best.



May we send Printed Matter?

See Also Pages 61, 74, 125 and 154 for other items.

Manufactured by
THE DALLETT COMPANY
PHILADELPHIA

Crane Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Meyer Coupling Co., Inc., Los Angeles.
Mueller Brass Co., Port Huron, Mich.
Parker Appliance Co., The, Cleveland, O.
Vogt, Henry, Machine Co., Louisville, Ky.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Couplings, Gasoline Pipe

(See "Fittings and Couplings, Gasoline Pipe")

Couplings, Hose, Air and Gas

Acheson Manufacturing Co., Rankin, Pa.
Alemite Corporation, Chicago, Ill.
Allen, W. D., Mfg. Co., Chicago, Ill.

Joy Automatic Air Hose Coupler

A SIMPLE TWIST OF THE WRIST DOES THE TRICK

H. D. EDWARDS & CO. - DETROIT, MICH.

Bastian-Blessing Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Pneumatic Tool Co., New York.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods, Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Edwards, H. D., & Co., Detroit, Mich.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F, Co, The, Akron, Ohio
Graton & Knight Co., Worcester, Mass.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Hunt, C. B., & Son, Salem, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Meyer Coupling Co., Inc., Los Angeles.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
Mulconroy Co., Inc., Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Paasche Airbrush Co., Chicago, Ill.
Rauch Manufacturing Co., The, Galena, Kan.
Republic Rubber Co., The, Youngstown, O.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Sight Feed Generator Co., Richmond, Ind.
Simplex Spray Equipment Co., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Couplings, Hose, Rotary

Dixon Valve & Coupling Co., Philadelphia, Pa.

Couplings, Hose, Steam

Allen, W. D., Mfg. Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Haydenville Co, The, Haydenville, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Hunt, C. B., & Son, Salem, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Rauch Manufacturing Co., The, Galena, Kan.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Thermoid Rubber Co., Trenton, N. J.
Walworth Co., New York, N. Y.

Couplings, Hose, Water

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Asch & Co., Inc., New York, N. Y.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dixon Valve & Coupling Co., Philadelphia.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Haydenville Co, The, Haydenville, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Hunt, C. B., & Son, Salem, Ohio.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Jiffy Fire Hose Rack Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Keystone Brass & Rubber Co., Philadelphia.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Meyer Coupling Co., Inc., Los Angeles.
Mulconroy Co., Inc., Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Brass Foundry Co., New York.
Nunn Brass Works, Rochester, N. Y.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Walworth Co., New York, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Couplings, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., Co., Philadelphia, Pa.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Brass Co., Port Huron, Mich.
New York Brass Foundry Co., New York.
Nugent, Wm. W., & Co., Chicago, Ill.
Nunn Brass Works, Rochester, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Couplings, Pipe, Cast Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Couplings, Pipe, Flexible

Barco Manufacturing Co., Chicago, Ill.
Chicago Tubing & Braiding Co., Maywood, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Meyer Coupling Co., Inc., Los Angeles.
Moran Flexible Steam Joint Co., Louisville, Ky.
Taylor Forge & Pipe Works, Chicago, Ill.

Couplings, Pipe, Malleable Iron

Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell, Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.
Wheeling Machine Products Co., Wheeling, W. Va.

Couplings, Pipe, Reducing

Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Couplings, Pipe, Repair

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Sacramento Pipe Works, Sacramento, Cal.

Couplings, Pipe, Wrought Iron and Steel

Bethlehem Steel Co., Bethlehem, Pa.
Byers, A. M., Co., Pittsburgh, Pa.
Camden Forge Co., Camden, N. J.
Central Tube Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kleinman, Russell F., Philadelphia, Pa.
National Tube Co., Pittsburgh, Pa.
Reading Iron Co., Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn. (Steel only)
Taylor Forge & Pipe Works, Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
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Wheeling Steel Corp., Wheeling, W. Va.
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Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Mast, Foos & Co., Springfield, Ohio.
Nunn Brass Works, Rochester, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Walworth Co., New York, N. Y.
Wheeling Machine Products Co., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Couplings, Range Boiler

(See "Fittings, Range Boiler")

Couplings, Rod, Malleable

Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.
Walworth Co., New York, N. Y.

Couplings, Sewer Rod

Nunn Brass Works, Rochester, N. Y.

Couplings, Shaft, Compression

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Fitz Water Wheel Co., Hanover, Pa.
Foote Bros. Gear & Machine Co., Chicago.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
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Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
Medart Co., St. Louis, Mo.
Moore & White Co., The, Philadelphia, Pa.
Perkins Marine Lamp Corp., Brooklyn.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Engineering & Mfg. Co., Chicago.
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Brown Engineering Co., Reading, Pa.
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Chicago Pulley & Shafting Co., Chicago.
De Laval Steam Turbine Co., Trenton, N. J.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Hilliard Corp., The, Elmira, N. Y.
Hoppes Water Wheel Co., Springfield, O.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
Medart Co., The, St. Louis, Mo.
Perkins Marine Lamp Corp., Brooklyn.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Smith & Serrell, Newark, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Tranter Mfg. Co., Pittsburgh, Pa.
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Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Flexible

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Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., The, Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Congress Tool & Die Co., Detroit, Mich.
Cook, H. N., Belting Co., San Francisco.
Cresson-Morris Co., Philadelphia, Pa.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton.
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Economy Pumping Machinery Co., Chicago, Ill.
Falk Corp., The, Milwaukee, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N.Y.
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Foote Gear Works, Inc., Chicago, Ill.
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Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Illinois Gear & Machine Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.
Link-Belt Co., Chicago, Ill.
Lovejoy Tool Works, Chicago, Ill.
Medart Co., St. Louis, Mo.
Meriam Co., The, Cleveland, Ohio.
Morse Chain Co., Ithaca, N. Y.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith & Serrell, Newark, N. J.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Walker-Turner Co., Inc., Plainfield, N. J.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
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Couplings, Shaft, Jaw Clutch

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Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee.
Fitz Water Wheel Co., Hanover, Pa.
Foote Gear Works, Inc., Chicago, Ill.
Gears and Forgings, Inc., Cleveland, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Philadelphia Gear Works, Philadelphia.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Couplings, Shaft, Universal Joint

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
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Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Philadelphia Gear Works, Philadelphia.
Smith Power Transmission Co., The, Cleveland, Ohio.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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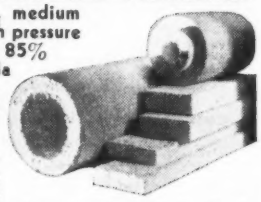
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Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Elwell-Parker Electric Co., The, Cleveland, Ohio. (Electric)
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Lewis-Shepard Co., Boston, Mass.
Marion Steam Shovel Co., Marion, Ohio.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
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Curtis Pneumatic Machinery Co., St. Louis.
Detroit Hoist & Machine Co., Detroit.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Industrial Brownhoist Corp., Cleveland.
Lane Mfg. Co., Montpelier, Vt.
Maris Brothers, Inc., Philadelphia, Pa.
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Milwaukee Electric Crane & Hoist Corp., West Allis, Wis.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
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Round, David, and Son, Cleveland, Ohio.
Shepard Niles Crane & Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
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Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Crayons, Industrial

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Handlan-Buck Mfg. Co., St. Louis, Mo.

Crosses, Pipe

(See "Pittings, Pipe")

Crow Bars

(See "Bars—Crow, Pinch and Pry")

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Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.

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Bernz, Otto, Co., Inc., Rochester, N. Y.
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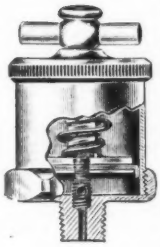
Glass Body Oil Cup as shown with check valve for gasoline engines and air compressor service, or plain type for industrial machinery bearings. Rate of feed controlled by adjusting nut and snap lever control. Rugged design and construction enable oil cups to stand severe use. Standard on industrial and agricultural machinery and in the machine tool industry. Large demand for replacement. Reasonably priced, with attractive discounts, insuring satisfactory profits on line.



GREASE CUPS: A full line of all standard design grease cups in all types, both brass and steel.

AMERICAN INJECTOR CO.
DETROIT, MICH.

Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quaker City Rubber Co., Philadelphia, Pa.
Reliance Rubber Corp., Keyport, N. J.

Cups, Grease, Automatic

Alemite Corp., Chicago, Ill.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Cook's, Adam, Sons, Inc., Linden, N. J.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Chas. W., Co., Muskegon, Mich.
Penberthy Injector Co., Detroit, Mich.
Scovill Mfg. Co., Waterbury, Conn.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Victor Instrument Mfg. Co., Inc., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Cups, Grease, Compression

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Cook's, Adam, Sons, Inc., Linden, N. J.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Dodge Manufacturing Corp., Mishawaka, Ind.
Essex Brass Corp., Detroit, Mich.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Franklin Oil & Gas Co., The, Bedford, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Jeffrey Manufacturing Co., Columbus, O.
Keystone Lubricating Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merchant & Evans Co., Philadelphia, Pa.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cups, Leather

(See "Leathers, Cup and Flange")

Cups, Oil, Force Feed

Alemite Corp., Chicago, Ill.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Elkhart Rubber Works, Elkhart, Ind.
Essex Brass Corp., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Gits Bros. Mfg. Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Victor Lubricator Co., Chicago, Ill.

Cups, Oil, Gas Engine

(See "Lubricators and Oil Cups, Gas Engine")

Cups, Oil, Glass Body

Allen, W. D., Mf. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Boston Gear Works, Inc., North Quincy, Mass.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Franklin Oil & Gas Co., The, Bedford, O.
General Brass Co., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Cups, Oil, Loose Pulley

Consolidated Brass Co., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Justrite Manufacturing Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

Cups, Oil, Plain Brass and Steel

Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bay State Stamping Co., Worcester, Mass.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hunter Pressed Steel Co., Lansdale, Pa.
Justrite Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nunn Brass Works, Rochester, N. Y.
Penberthy Injector Co., Detroit, Mich.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

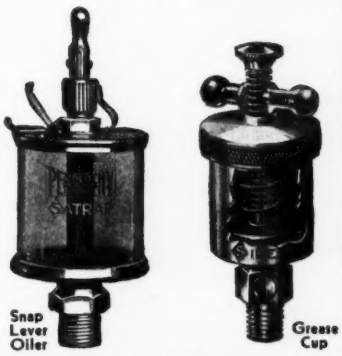
Cups, Oil, Slide

American Injector Co., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Victor Lubricator Co., Chicago, Ill.

Cups, Priming

American Injector Co., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Co., Detroit, Mich.
Hunter Pressed Steel Co., Lansdale, Pa.

PENBERTHY PRODUCTS



PENBERTHY LUBRICATING DEVICES

Universally used throughout industry because of their superior workmanship and materials which result in dependable operation under the most severe conditions. Write for catalog.

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Detroit, Mich. Windsor, Ont.
Manufacturers of Quality Products Since 1886

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Lunkenheimer Co., The, Cincinnati, Ohio.
Penberthy Injector Co., Detroit, Mich.
Williams, D. T., Valve Co., The, Cincinnati.

Cups, Valve

Chicago Rawhide Mfg. Co., The, Chicago.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, O. (Valve, stem and guide)
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Parker Cup & Specialty Works, Parkers Landing, Pa. (Composition, canvas and leather)
Republic Rubber Co., The, Youngstown, O.
Schieren, Chas. A., Co., New York, N. Y.
Western Packing & Supply Co., Chicago.

Cutters, Bar and Angle Iron

(See "Shears, Metal Cutting")

Cutters, Belt

Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Manufacturers' Belt Hook Co., Chicago.
Raniville, F., Co., Grand Rapids, Mich.
Schollhorn, Wm., Co., The, New Haven, Conn.

Cutters, Bolt and Rivet

(See "Clippers—Bolt, Rivet and Wire")

Cutters, Chain

Porter, H. K., Inc., Everett, Mass.

Cutters, Circle, Glass

Barrett, Wm. L., Co., Bristol, Conn.
Fletcher-Terry Co., The, Forestville, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Karelsen E., Inc., New York, N. Y.
Millers Falls Co., Greenfield, Mass.

Cutters, Circle, Metal

Cincinnati Tool Co., The, Cincinnati, O.
Gairing Tool Co., The, Detroit, Mich.
Ideal Commutator Dresser Co., Sycamore, Ill. (Commutator)
Morse Twist Drill & Machine Co., New Bedford, Mass.
Niagara Machine & Tool Works, Buffalo.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Torrington Mfg. Co., The, Torrington, Conn.

Cutters, Drill Press

Gairing Tool Co., The, Detroit, Mich.

Cutters, Electric Wire

Crescent Tool Co., Jamestown, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill.
Porter, H. K., Inc., Everett, Mass.
Schollhorn, Wm., Co., The, New Haven, Conn.

Cutters, Emery Wheel Dresser

(See "Dressers, Emery and Grinding Wheel")

Cutters, Flue Hole

Gairing Tool Co., The, Detroit, Mich.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.

Cutters, Flue and Tube

Cowles Tool Co., Cleveland, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
International Nulyp Tool Corp., Oswego, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Vincent Steel Process Co., Detroit, Mich.

Cutters, Form

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R.I.
Gairing Tool Co., The, Detroit, Mich.
National Twist Drill & Tool Co., Detroit, Mich.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.

Cutters, Gauge Glass

Barrett, Wm. L., Co., Bristol, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Karelsen E., Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.

Cutters, Gasket

(See "Cutters, Washer and Gasket")

Cutters, Gear

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Farrel-Birmingham Co., Inc., Buffalo, N.Y.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Glass

American Saw & Mfg. Co., Springfield, Mass.
Barrett, Wm. L., Co., Bristol, Conn.
Fletcher-Terry Co., The, Forestville, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Karelsen, E., Inc., New York, N. Y. (Diamond, also Machines)
Kilborn and Bishop Co., The, New Haven, Conn.
Millers Falls Co., Greenfield, Mass.
Newark Brush & Scraper Co., Irvington, N. J.

Cutters, Grindstone

(See "Dressers, Emery and Grinding Wheel")

"LENOX"

GLASS CUTTERS

Well Balanced Weight Where Needed

"Lenox" Glass Cutters have several new features. We have departed from the old practices in the tempering and sharpening of the cutting-wheels. The design and balance have been refined. The finish has been given more attention.

The result is a Glass Cutter that from point of appearance, ease of operation, and length of service is superior to any cutter on the market.

AMERICAN SAW & MFG. CO.
Springfield, Mass., U. S. A.

"The Tools in the Plaid Box"

Another Service to the Field

MILL SUPPLIES magazine considers the service it provides distributors, their salesmen and manufacturers an integral and vitally important part of its activities. This service, extending in various directions, is constantly expanding and will continue to expand month after month and year after year.

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MILL SUPPLIES

"The Magazine of Industrial Distribution"

UMI

Cutters, Hole

Armstrong-Blum Mfg. Co., Chicago, Ill.
Gairing Tool Co., The, Detroit, Mich.
National Tool Co., The, Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.

Cutters, Keyseat

Baker Brothers, Inc., Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R.I.
Burr, John T., & Son, Brooklyn, N. Y.
Cowles Tool Co., Cleveland, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Ingersoll Milling Machine Co., Rockford.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.
Whitney Mfg. Co., The, Hartford, Conn.

Cutters, Lace Leather

American Swiss File & Tool Co., Elizabeth, N. J.
Manufacturers' Belt Hook Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.

Cutters—Lead Pipe

Bernz, Otto, Co., Inc., Rochester, N. Y.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Cutters, Milling

Alvord-Polk Tool Co., Millersburg, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gairing Tool Co., The, Detroit, Mich.
Ideal Commutator Dresser Co., Sycamore, Ill.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Lovejoy Tool Co., Inc., Springfield, Vt.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Orum, S. R. M., Inc., Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Thurston Mfg. Co., Providence, R. I.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Pipe

Armstrong Brothers Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y. (Lead pipe cutter)
Borden Co., The, Warren, Ohio.
Collmer Bros., South Bend, Ind.
Crane Co., Chicago, Ill.
Curtis & Curtis Co., The, Bridgeport, Conn.
Ellis & Ford Mfg. Co., Detroit, Mich.
Erie Tool Works, The, Erie, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.

(Continued on Page 84)

ARMSTRONG BROS.
Improved PIPE CUTTERS
Drop Forged Pipe Cutters and "Saunders Type," "Barnes Type" and "Combination" Pipe Cutters. Improved in design. Wearing and stress parts have been strengthened with drop forging, and hardened tool steels. Knife Blade Cutter Wheels of Alloy Steel, heat treated, oil tempered. Fit all Cutters.
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ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
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RIDGID

PIPE CUTTERS

with Thin Super-Steel Blade

RIDGID Cutter frames with internal reinforcing of tempered steel. Will not break or warp. Shaped to protect cutting blade. Rollers interchangeable to make 3-wheel cutter.

List Price—No. 1, ⅛"-1¼", $4.50; No. 2, ⅛"-2", $6.00; No. 3, 1"-3", $10.00; No. 4, 2"-4", $20.00.

RIDGID Cutter Blade below fits any RIDGID type cutter.

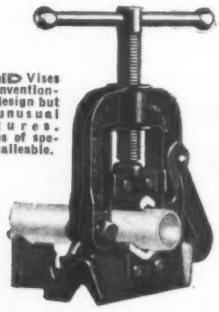
RIDGID CUTTER BLADES

Made of thin super-steel, coined out of alloy tool steel, hammered and heat-treated. Many more cuts, quick, clean, practically no burr. Reinforced hub cast into blade.

No. 00 TUBING CUTTER

Capacity ⅛" to 1". List Price $1.75.

Made with twin-piece saddle assembled with snap-on V-pad of wear-proof spring steel. Pad irons tube smooth, ready to solder. Pipe reamer.



RIDGID Vises are conventional in design but have unusual features. Frames of special malleable.

RIDGID YOKE BENCH VISE

All RIDGID Vises have pipe rests and pipe benders. Jaws of highest quality tool steel. Other RIDGID Vises — Yoke bench, kit, post, stand; Chain bench, post, stand.

Prices quoted above subject to usual trade discounts.

THE RIDGE TOOL CO.

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International Nulyp Tool Corp., Oswego, N. Y.
Merrell Manufacturing Co., The, Toledo, O.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Strickler, W. W., & Brothers, Columbus, O.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.

Cutters, Pipe, Wrought and Cast Iron

Armstrong Brothers Tool Co., Chicago.
Armstrong Manufacturing Co., Bridgeport, Conn.
Borden Co., The, Warren, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.

Cutters, Rod

Armstrong-Blum Mfg. Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Carolus Manufacturing Co., Sterling, Ill.
Gundlach, T. J., Machine Co., Belleville, Ill.
National Machine Tool Co., Racine, Wis.
Porter, H. K., Inc., Everett, Mass.

Cutters, Screw Slotting

Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R.I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Shear

(See "Shears, Metal Cutting, Hand and Foot Power")

Cutters, Slitting Machine

Brown & Sharpe Mfg. Co., Providence, R.I.
Buffalo Forge Co., Buffalo, N. Y.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gundlach, T. J., Machine Co., Belleville, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Torrington Mfg. Co., The, Torrington, Conn.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Sprocket

Barber-Colman Co., Rockford, Ill.
Cowles Tool Co., Cleveland, Ohio.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Cutters, Sprue

Buffalo Forge Co., Buffalo, N. Y.
Niagara Machine & Tool Works, Buffalo.
Rock River Machine Co., Janesville, Wis.
Tessmer Machine & Tool Co., Detroit.

Cutters, Washer and Gasket

Bernz, Otto, Co., Inc., Rochester, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cowles Tool Co., Cleveland, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Greene, Tweed & Co., New York, N. Y.
Millers Falls Co., Greenfield, Mass.
Skinner, M. B., Co., South Bend, Ind.

Cutters, Wire

Carolus Manufacturing Co., Sterling, Ill.
Crescent Tool Co., Jamestown, N. Y.
Porter, H. K., Inc., Everett, Mass.
Sandvik Saw & Tool Corp., Minneapolis.

TRIMO

PIPE CUTTERS FOR EVERY NEED

Trimo Type — proved design for use as one or three wheel cutter. Long wear, fast cuts.

Trimo-Saunders Type — the block springs back, speeding up the work.

Tubing cutter for plumbers brass pipe or copper tubing — rust resisting finish, unique design — reamer included.

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Snap-On Tools, Inc., Kenosha, Wis.
Worthington Pump and Machinery Corp., Harrison, N. J.

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Carolus Mfg. Co., Sterling, Ill.
Leschen, A., & Sons Rope Co., St. Louis.
Porter, H. K., Inc., Everett, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.

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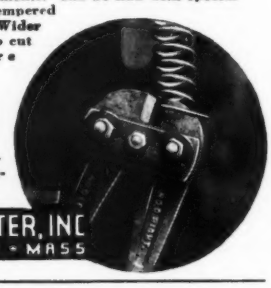
Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Philadelphia.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Latrobe Tool Co., Latrobe, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mattison Machine Works, Rockford, Ill.
Orum, S. R. M., Inc., Philadelphia, Pa.

PORTER *Wire Cutters*

Stands up under use—cuts easily and quickly. All tools fully adjustable. Sizes to meet all general requirements. Can be had with special jaws to cut tempered spring wire. Wider opening jaws to cut insulated wire and cable.

Sold by supply houses and jobbers everywhere. Write for descriptive circular.



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Stalter Edge Tool Co., Grand Rapids, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.

Cutting Attachments, Gear

Brown & Sharpe Mfg. Co., Providence, R.I.

Cutting Machines, Gear

(See "Machines, Cutting, Gear")

Cutting and Threading Machines, Pipe

(See "Machines, Cutting and Threading, Pipe")

Cutting-off Machines, Metal

(See "Machines, Cutting-off, Metal")

Cylinders, Compressed Air or Gas

Air Reduction Sales Co., New York, N. Y.
Chicago Pneumatic Tool Co., New York.
Filer & Stowell Co., The, Milwaukee, Wis.
Hannifin Mfg. Co., Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Modern Engineering Co., St. Louis, Mo.
National Transit Pump & Machine Co., Oil City, Pa.
National Tube Co., Pittsburgh, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Cylinders, Pump or Well

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Dean-Hill Pump Co., Anderson, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Mast, Foos & Co., Springfield, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Midland Mfg. Co., Ft. Worth, Tex.
Myers, F. E., & Bro. Co., The, Ashland, O.
Red Cross Mfg. Co., The, Bluffton, Ind.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Walworth Co., New York, N. Y.

Demagnetizers

Luma Electric Equipment Co., Toledo, O.

Derricks

American Hoist & Derrick Co., St. Paul, Minn.
Buffalo Hoist & Derrick Co., Inc., Buffalo.
Channon, J. H., Corp., Chicago, Ill.
Harnischfeger Corp., Milwaukee, Wis.
Lane Mfg. Co., Montpelier, Vt.
Leschen, A., & Sons Rope Co., St. Louis.
Loane Engineering Co., Baltimore, Md.
Mueller Co., Decatur, Ill.

Derricks or Tripods, Portable

American Hoist & Derrick Co., St. Paul, Minn.
Loane Engineering Co., Baltimore, Md.
Speidel Elevator Corp., Reading, Pa.

Desks, Factory, Steel

Angle Steel Stool Co., Plainwell, Mich.
Hullhorst Micro-Tool Co., Toledo, Ohio.
Lupton's, David, Sons Co., Philadelphia.
Pollard Bros. Mfg. Co., Chicago, Ill.
Remington Rand, Inc., Buffalo, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.

Detectors, Common and Flow

Central Automatic Sprinkler Co., Philadelphia, Pa.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.

Detergents

Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Duryea Manufacturing Co., Bayonne, N. J.
Quigley Co., Inc., New York, N. Y.

Diamonds, Industrial

Commercial Diamond Co., Detroit, Mich.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Karelsen, E., Inc., New York, N. Y.
Osgood, J. L., Machinery & Tool Co., Inc., Buffalo, N. Y.

Diaphragms, Metal

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.

DIAPHRAGMS

—for trench pumps

—for regulators

or fabric inserted rubber sheet in lengths for cutting high-pressure sizes.

Elkhart Rubber Works
Elkhart, Indiana

Fisher Governor Co., The, Marshalltown, Iowa.
Lubron Co., The, Everett, Mass.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.

Diaphragms, Rubber, Boiler and Pump

Atlantic Manufacturing Co., Wilmington, Del.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Fisher Governor Co., The, Marshalltown, Iowa.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N.J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Standard Packing & Rubber Co., New York, N. Y.
Whitehead Bros. Rubber Co., Trenton, N.J.

Diaphragms, Rubber, for Heat Regulators

Diamond Rubber Co., Inc., The, Akron, O.
Elkhart Rubber Works, Elkhart, Ind.
New York Belting & Packing Co., Passaic, N. J.

Die Sets

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Campbell, Andrew C., Inc., Division of American Chain Co., Inc., Bridgeport, Conn.
Champion Blower and Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.

Die Sinking Machines

(See "Machines, Die Sinking")

Die Sinking Outfits

Grobet File Corp. of America, New York.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.

Die Stocks

(See "Stocks and Dies" and "Stocks, Die")

Dies, Automatic Opening

Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
National Acme Co., The, Cleveland, Ohio.
Northern Specialty Co., Utica, N. Y.
Pratt & Whitney Co., Hartford, Conn.

Dies, Bending and Trimming

Brown, R. H., & Co., New Haven, Conn.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Huot Manufacturing Co., St. Paul, Minn.
LaPorte Machine & Tool Co., LaPorte, Ind.
National Machine Tool Co., Racine, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Northern Specialty Co., Utica, N. Y.
Quadriga Mfg. Co., The, Chicago, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Dies, Blanking

Brown, R. H., & Co., New Haven, Conn.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Huot Manufacturing Co., St. Paul, Minn.
LaPorte Machine & Tool Co., LaPorte, Ind.
National Machine Tool Co., Racine, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Northern Specialty Co., Utica, N. Y.
Products Manufacturing Co., Milwaukee, Wis.
Quadriga Mfg. Co., The, Chicago, Ill.
Robinson Mfg. Co., Waterbury, Conn.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Whitney Metal Tool Co., Rockford, Ill.

Dies, Bolt

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bay State Tap & Die Co., Mansfield, Mass.
Borden Co., The, Warren, Ohio.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit, Mich.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., The, Cleveland, Ohio.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Winter Brothers Co., Inc., Wrentham, Mass.

Dies, for Brass Tubing

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Conant & Donelson Co., Conway, Mass.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.

Dies, Cutting and Forming

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown, R. H., & Co., New Haven, Conn.
Curtin-Hebert Co., Inc., Gloversville, N. Y.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Huot Manufacturing Co., St. Paul, Minn.
LaPorte Machine & Tool Co., LaPorte, Ind.
Niagara Machine & Tool Works, Buffalo, N. Y.
Northern Specialty Co., Utica, N. Y.
Products Manufacturing Co., Milwaukee.
Quadriga Mfg. Co., The, Chicago, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Whitney Metal Tool Co., Rockford, Ill.

Dies, Marking

Everhot Mfg. Co., Maywood, Ill.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Martin Machine Co., Inc., Turners Falls, Mass.
Matthews, Jas. H., & Co., Pittsburgh, Pa.

Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Superior Steel Stamp Co., Cleveland, O.

Dies, Pipe Threading

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Borden Co., The, Warren, Ohio.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division Union Twist Drill Co., Mansfield, Mass.
Crane Co., Chicago, Ill.
Curtis & Curtis Co., The, Bridgeport, Conn.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., The, Cleveland, Ohio.
Nye Tool & Machine Works, The, Chicago, Ill.
Oster-Williams, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Standard Tool Co., Cleveland, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Walworth Co., New York, N. Y.
Winter Brothers Co., Inc., Wrentham, Mass.

Dies, Re-threading, Hexagon

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Dies, Screw Cutting, Adjustable, Boilermakers'

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit, Mich.
Champion Blower and Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Winter Brothers Co., Inc., Wrentham, Mass.

Dies, Sheet Metal Working

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Brown, R. H., & Co., New Haven, Conn.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Huot Manufacturing Co., St. Paul, Minn.
Marchant, Geo. F., Co., Chicago, Ill.
Niagara Machine & Tool Works, Buffalo.
Northern Specialty Co., Utica, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Robinson Mfg. Co., Waterbury, Conn.
Rock River Machine Co., Janesville, Wis.
Scully-Jones & Co., Tool Division, Chicago.
Veeder-Root, Inc., Hartford, Conn.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Dies, Stamping

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Brown, R. H., & Co., New Haven, Conn.

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Niagara Machine & Tool Works, Buffalo, N. Y.
Northern Specialty Co., Utica, N. Y.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
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Robinson Mfg. Co., Waterbury, Conn.
Toledo Pressed Steel Co., The, Toledo, O.
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Keystone Reamer & Tool Co., Millersburg, Pa.
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National Acme Co., The, Cleveland, Ohio.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Standard Tool Co., Cleveland, Ohio.

Diggers, Clay

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Cleveland Rock Drill Co., The, Cleveland. (Also trench diggers)
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Ingersoll-Rand Co., New York, N. Y.
Vulcan Tool Mfg. Co., Quincy, Mass. (Air)

Diggers, Post Hole

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Iwan Brothers, South Bend, Ind.
Klein-Logan Co., The, Pittsburgh, Pa.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Dippers, Solder

Littleford Bros., Cincinnati, Ohio.

Dippers, Tar

Littleford Bros., Cincinnati, Ohio.

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Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Armour Sand Paper Works, Chicago, Ill.
Besly, Charles H., & Co., Chicago, Ill.
Black & Decker Mfg. Co., The, Towson, Md.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill.
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Millers Falls Co., Greenfield, Mass.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Peninsular Grinding Wheel Co., Detroit, Mich.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Walls Sales Corp., New York, N. Y.

Discs, Bibb

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Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mueller Co., Decatur, Ill.

Discs, Brass and Copper

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Bay State Stamping Co., Worcester, Mass.
Consolidated Metal Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Stamping Co., Detroit, Mich.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Massachusetts Machine Shop, Inc., Boston, Mass.
Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Scovill Mfg. Co., Waterbury, Conn.
Torrington Mfg. Co., The, Torrington, Conn.
U. S. Indestructible Gasket Co., Brooklyn.

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Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
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Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.

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Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Eagle Belting Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Johnson Belting Co., New York, N. Y.

Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Michigan Leather Packing Co., Detroit.
Miley, L. J., Co., Inc., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Moloney Belting Co., Chicago, Ill.
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Page Belting Co., Concord. N. H.
Philadelphia Belting Co., Philadelphia, Pa.
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Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

Discs, Valve

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Belmont Packing & Rubber Co., The, Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Crane Co., Chicago, Ill.
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Ehret Magnesia Mfg. Co., Valley Forge, Pa.
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Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
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Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
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Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
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Schollhorn, Wm., Co., The, New Haven.
Stanley Rule & Level Plant, The, New Britain, Conn.

Dogs, Chain

American Chain Co., Inc., Bridgeport, Conn.
Carr Chain Works, Inc., Troy, N. Y.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, Cleveland.
Columbus McKinnon Chain Corp, Tonawanda, N. Y.
Dallett Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Loomis Machine Co., Tiffin, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.
Webster Mfg. Co., Chicago, Ill.
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Armstrong Bros. Tool Co., Chicago, Ill.
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Williams, J. H., & Co., New York, N. Y.

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Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
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Channon, J. H., Corp, Chicago, Ill.
Lansing Co., Lansing, Mich.
Menasha Wood Split Pulley Co., Menasha, Wis.
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(See "Trucks, Dolly")

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(See "Machines, Doweling")

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(See "Gauges, Draft")

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Crane Co., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Deming Co., The, Salem, Ohio.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
McGowan, John H., Co., The, Cincinnati, O.
Mechanical Devices Co., Bloomington, Ill.
Oberdorfer, M. L., Brass Co., Syracuse.
Penberthy Injector Co., Detroit, Mich.
Perkins Marine Lamp Corp., Brooklyn.
Roper, Geo. D., Corporation, Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taber Pump Co., Buffalo, N. Y.
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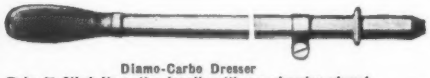

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Tube is filled its entire length with an abrasive almost as hard as diamonds. Dresses and trues all wheels up to the "hard" grades.

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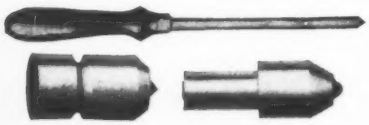
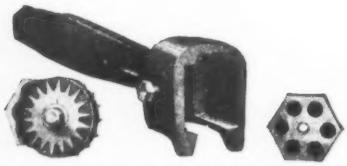
Has long wearing bearings and cutters, for use on the largest and hardest grinding wheels where quick action is necessary.

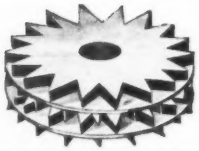


Desmond Diamond Dresser
The ideal tool for precision grinders. Hand tools and diamond nibs for Norton and Landis grinders shown above. Diamonds also mounted in all special holders.



Desmond-Hex Dresser
Most durable mechanical dresser made. Hexagon bearing nuts inserted in jaws give six sets of bearings. No wear on holder.

Desmond-Sherman
For hard, coarse or large wheels.



Hardened steel cutter made in three sizes for Desmond-Huntington Dressers.

Desmond-Stephan offers distributors a complete line of nationally known grinding wheel dressers. On the market 25 years. Free advice on any wheel dressing problem. Write for catalog "D" giving valuable information on wheel dressing and showing a dresser for every type of grinding wheel.

Desmond-Stephan Mfg. Co.
Urbana, Ohio

Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Draughtsmen's Instruments
(See "Instruments, Draughtsmen's and Engineers' ")

Drawers, Bench
All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Lupton's, David, Sons Co., Philadelphia, Pa.
Pollard Bros. Mfg. Co., Chicago, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.

Dressers, Bibb Seat
Bernz, Otto, Inc., Rochester, N. Y.
Crane Co., Chicago, Ill.

DIAMOND TOOLS
FOR ECONOMY

All types for dressing grinding wheels. Shaped Diamond Tools, etc. Large stock unset stones on hand. Resettings and resharpenings returned same day received.

Send for price list and specify your requirements.

E. KARELSEN, Inc.
Established 1852
17 West 44th St., New York, N. Y.

Dressers, Diamond
Chicago Wheel & Mfg. Co., Chicago, Ill.
Commercial Diamond Co., Detroit, Mich.
Desmond-Stephan Mfg. Co., Urbana, O.
Diamond Drill Carbon Co., The, New York.
Karelsen, E., Inc., New York, N. Y.

Dressers, Emery and Grinding Wheel
Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Bay State Stamping Co., Worcester, Mass.
Calder, Geo. H., Co., Lancaster, Pa.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Collmer Bros., South Bend, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Curtin-Hebert Co., Inc., Gloversville, N. Y.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Greene, Tweed & Co., New York, N. Y.
Karelsen, E., Inc., New York, N. Y.
Luther Grinder & Tool Co., Milwaukee.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Sandvik Saw & Tool Corp., Minneapolis.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Standard Tool Co., Cleveland, Ohio.
Vincent Steel Process Co., Detroit, Mich.
Wave Cut File & Tool Corp, New York.

Dressing, Belt, Bar
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Atlantic Manufacturing Co., Wilmington, Del.
Baltimore Belting Co., Baltimore, Md
Beltonic Products Co., Chicago, Ill
Black Diamond Paint & Varnish Co., The, Cincinnati, Ohio.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Cling-Surface Co., Buffalo, N. Y.

VINCENT-HUNTINGTON
Grinding Wheel Dressers and Cutters

for better service, repeat sales and good distributor profits.

Huntington Dressers are used for truing and dressing all types of grinding wheels.

Huntington Dressers are made in the following sizes and styles: No. 0 Regular Type—No. 0 Hooded Type—No. 0 Special Type—No. 1 Hooded Type—No. 1 Special Hooded Type—No. 2 Hooded Type.

No. 0. Dressers are for use on wheels up to 1½" thick.

No. 1. Dressers are for use on wheels 1⅝" to 2" thick.

No. 2. Dressers are for use on wheels 2¼" thick and over.

All Vincent Dressers are equipped with hardened steel pins and bushings.

No. 0 Huntington Dresser Cutter, Regular Type—Diameter 1 3/16". Hole ¼".

No. 0 Huntington Dresser, Hooded Type—Length 11 inches; weight 1¾ lbs.

Types and Sizes of Cutters

No. 0 Cutters for use in any No. 0 Dresser (18 teeth).

No. 0 Extra Thin Cutters. (18 pieces to set).

No. 1 Cutters, 1½" dia. with ½" hole, for use in any No. 1 Dresser. Can be supplied with bushing 15/32" x ½" with ¼" hole.

No. 1 Special Cutters, heavier and larger than regular No. 1, for use in No. 1 Special Dresser or any other dresser requiring a cutter 1⅝" diameter with ⅝" hole.

No. 2 Cutters, largest of Huntington type, 2¾" dia. with ⅝" hole, for use with any No. 2 Dressers. Can be supplied with bushing ⅝" x 1" with 5/16" hole.

No. 0 Bushed or "Paragon" Huntington Cutters, supplied with hardened steel bushing in center 7/16" x 15/32" with ¼" hole, reducing friction to a minimum.

Prompt service guaranteed on distributor inquiries.

THE VINCENT STEEL PROCESS COMPANY
2434 Bellevue Avenue
DETROIT, MICHIGAN

WIZARD Stick Belt Dressing

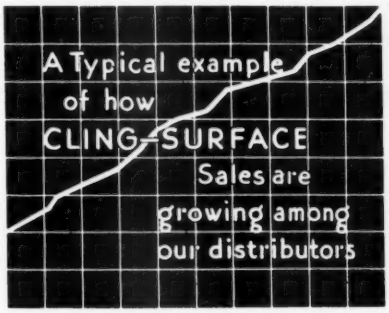
Wizard Belt Sticks contain no rosin, rosin oil, fish oil or any other substance harmful to belting. We use pure castor oil, which makes the belt soft and flexible, able to hug the pulley and deliver the maximum load.

DISTRIBUTORS WANTED

We sell only to Distributors. Our sample system gets the orders. Write for the plan. Others are making it pay.

RICHMOND BELT DRESSING MFG. CO., Inc.
Richmond, Va.

Cook's, Adam, Sons, Inc., Linden, N. J
Couse & Bolton, Inc., Newark, N. J.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Eagle Belting Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Hinds and Coon Co., Boston, Mass.
Home Rubber Co., Trenton, N. J.
Jerry Bros. Belting Co., Richmond, Va.
Jobbers Mfg. Co., Chicago, Ill.
McCauley Belting Co., Chicago, Ill.
Magic Leather Treatment Co., Detroit.
Main Belting Co., Philadelphia, Pa.
Manufacturers' Belt Hook Co., Chicago.
Manheim Mfg. & Belting Co., Manheim, Pa.
Norton Belting Co., Wellesley Hills, Mass.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Richmond Belt Dressing Mfg. Co., Inc., Richmond, Va.
Schieren, Chas. A., Co., New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Stephenson Mfg. Co., Albany, N. Y.
Superior Flake Graphite Co., Chicago.



Follow the line of least resistance to greater Belt Preservative Sales and Profits

Sell

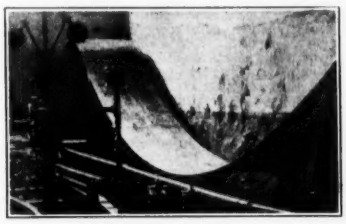
CLING-SURFACE

Belt-Preservative

The one Belt-Preservative with world-wide consumer acceptance—Works equally well on all types of belts—rubber, leather, canvas, balata, rope, etc.—Prevents slip—Permits belts to run slack thus reducing tension, friction, oil consumption, wear and power loss.

A proven repeater that is helping to increase Belt-Preservative sales for more and more distributors.

Complete information gladly furnished on request.



CLING-SURFACE CO.
1026 Niagara St. Buffalo, N. Y.

Beltonic
U.S. PATENT NO. 1488917
Safstick Bar
BELT DRESSING
Safe - Convenient and Economical

"Safstick" holder protects fingers from injury, saves the user's time, and allows the bar to be used to the very end. Patented device keeps bar from slipping back in holder. One pound bars.

Sold exclusively by mill supply houses. Ask for prices and sample of folders furnished distributors.

BELTONIC PRODUCTS CO.
N. Leclaire Avenue and Moffat Street
CRAGIN STATION
CHICAGO, ILLINOIS

Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Zimmer, Conrad, Belting Co., New York.

Dressing, Belt, Liquid and Paste

Alexander Brothers, Inc., Philadelphia, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allentown Leather Belting Co., Allentown, Pa.
American Asphalt Paint Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Atlantic Manufacturing Co., Wilmington, Del.
Baltimore Belting Co., Baltimore, Md.
Baum's Castorine Co., Rome, N. Y.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Bonner & Barnewall, Inc., New York, N. Y.
Burrell Belting Co., Chicago, Ill.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Chicago Belting Co., Chicago, Ill.
Cling-Surface Co., Buffalo, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Commercial Chemical Co., Boston, Mass.
Couse & Bolten, Inc., Newark, N. J.
Covell-Hanchett Co., Big Rapids, Mich.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Detroit Oak Belting Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Duryea Manufacturing Co., Bayonne, N. J.
Eagle Belting Co., Chicago, Ill.
Ensign Products Co., Cleveland, Ohio. (Liquid only)
Gandy Belting Co., Grand Rapids, Mich.
Graton & Knight Co., Worcester, Mass.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Hinds and Coon Co., Boston, Mass.
Holyoke Belting Co., Holyoke, Mass.
Home Rubber Co., Trenton, N. J.
Imperial Belting Co., Chicago, Ill.
Jerry Bros. Belting Co., Richmond, Va.
Jobbers Mfg. Co., Chicago, Ill.
Kant Slip Mfg. Co., Chicago, Ill. (Liquid only)
Keystone Belting Co., Philadelphia, Pa.
McCauley Belting Co., Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Manheim Mfg. & Belting Co., Manheim, Pa.

ROCKWOOD
BELT-PULL
Saves Belts—Saves Power

Adds Grip—Stops Slip

Ideal for reconditioning belts that have lost their grip. Takes hold instantly—gives immediate results. Effective for indoor or outdoor drives. Packed in quart and gallon cans—also handy tubes. Low in cost.

● *A product you should stock. Write for free sample.*

THE ROCKWOOD MFG. CO.
Division of General Fibre Products, Inc.
INDIANAPOLIS, INDIANA

Norton Belting Co., Wellesley Hills, Mass.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Pennsylvania Lubricating Co., Pittsburgh.
Protection Products Co., Detroit, Mich.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Russesll Mfg. Co., Middletown, Conn.
Schieren, Chas. A., Co., New York, N. Y.
Sero Specialty Co., Cleveland, Ohio.
Superior Flake Graphite Co., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Zimmer, Conrad, Belting Co., New York.

Dressing, Rope Drive

Alexander Brothers, Inc., Philadelphia, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Baltimore Belting Co., Baltimore, Md.
Black Diamond Paint & Varnish Co., The, Cincinnati, Ohio.
Cling-Surface Co., Buffalo, N. Y.
Commercial Chemical Co., Boston, Mass.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Himmelein & Bailey, Inc., Camden, N. J.
Jobbers Mfg. Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Sero Specialty Co., Cleveland, Ohio.
Stephenson Mfg. Co., Albany, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Dressing and Lubricants, Wire Rope

Alemite Corp., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y.
Cling Surface Co., Buffalo, N. Y.
Commercial Chemical Co., Boston, Mass.
Cook's Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey, N. J.
Franklin Oil & Gas Co., The, Bedford, Ohio.
Jobbers Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Leschen, A., & Sons Rope Co., St. Louis.
Magic Leather Treatment Co., Detroit.
Pennsylvania Lubricating Co., Pittsburgh.
Raniville, F., Co., Grand Rapids, Mich.
Sero Specialty Co., Cleveland, Ohio.
Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
Superior Flake Graphite Co., Chicago, Ill.
Wire Rope Lubricating Co., Trenton, N. J.

Drill, Anvil and Vise Combined

(See "Anvil, Vise and Drill Combined")

Drill Drifts

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drill Points

(See "Points, Drill")

Drill Speeders

(See "Speeders, Drill")

Drilling Attachments

Barnes Drill Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Craley, C. C., Mfg. Co., Shillington, Pa.
Ettco Tool Co., Inc., Brooklyn, N. Y.
Hisey-Wolf Machine Co., The, Cincinnati.
Mueller Co., Decatur, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Rockford Drilling Machine Co., Rockford, Ill.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.

Drilling Machines

(For drilling machines not found under the heading "Drills," see "Machines, Drilling.")

Drilling Machinery and Tools, Well

(See "Machines and Tools, Drilling, Well")

Drills, Air

(See "Machines, Drilling, Pneumatic")

Drills, Automatic Push

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Drills, Bell Hangers' and Electricians'

Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Bit Stock

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Blacksmiths'

Alvord-Polk Tool Co., Millersburg, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill and Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Breast

(See "Machines, Drilling—Breast, Chain and Hand")

Drills—Brick, Stone, Concrete, Masonry, Etc.

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Arro Expansion Bolt Co., Marion, Ohio.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Dallett Co., The, Philadelphia, Pa.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corporation), New York, N. Y.
Plomb Tool Co., Los Angeles, Calif.

RAWLDRILLS
REG. U.S. PAT. OFF.
Easily Sharpened
3-Point-Drill Faster and Last Longer
The most economical masonry drills at any price when you consider their life and drilling speed. They can be resharpened on any grinding wheel. A nationally known and used product of unequalled effectiveness. Our 1935 Jobbers' Merchandising Plan insures a profitable business. Write for full information.
THE RAWLPLUG COMPANY, Inc.
97 Lafayette St. New York, N.Y.-and everywhere

Portable Power Tool Corp., Warsaw, Ind.
Rawplug Co., The. New York, N. Y.
Standard Electrical Tool Co., The, Cincinnati, Ohio. (Marble, etc.)
Standard Tool Co., Cleveland, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Vlchek Tool Co., The, Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.

Drills, Center

Bay State Tap & Die Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Coal

Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Cleveland Rock Drill Co., The, Cleveland.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Howells Mining Drill Co., Plymouth, Pa.
Ingersoll-Rand Co., New York, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Leetonia Tool Co., The, Leetonia, Ohio.
Loomis Machine Co., Tiffin, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Core

Acker Drill Co., Scranton, Pa.
Bicknell-Thomas Co., Greenfield, Mass.
Dobbins Core Drill Co., Inc., Long Island City, N. Y.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich.
Ingersoll-Rand Co., New York, N. Y.
National Twist Drill & Tool Co., Detroit, Mich.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Diamond Pointed

(See "Tools, Diamond Pointed")

Drills, Electric

(See "Machines, Drilling, Electric, Portable," and "Machines, Drilling, Electric, Stationary")

Street Addresses or Post Office Box Numbers

of Manufacturers whose products are listed in the Directory Edition will be found in the "Names and Addresses" Section

UMI

Drills, Hammer

American Swiss File & Tool Co., Elizabeth, N. J.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Hubbard & Co., Pittsburgh, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Rawplug Co., The, New York, N. Y.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Wodack Electric Tool Corp., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Left Hand

Colton, Arthur, Co., Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Masonry

(See "Drills, Brick, Stone, Concrete, Masonry, Etc.")

Drills, Oil Hole

Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Loomis Machine Co., Tiffin, Ohio.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Oil Well, Portable

Loomis Machine Co., Tiffin, Ohio.
Sanderson Cyclone Drill Co., The, Orrville, Ohio.

Drills, Pipe Tapping

Barnes Drill Co., Rockford, Ill.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Ingersoll-Rand Co., New York, N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Walworth Co., New York, N. Y.

Drills, Plug

Drew, C., & Co., Kingston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Pneumatic

(See "Machines, Drilling, Pneumatic")

Drills, Portable, Electric

(See "Machines, Drilling, Electric, Portable")

Drills, Post

Black & Decker Mfg. Co., The, Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Keystone Mfg. Co., Buffalo, N. Y.
Portable Power Tool Corp., Warsaw, Ind.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Drills, Radio, in Sets

Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
New Process Twist Drill Co., Taunton, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

HARGRAVE
Alloy Steel - Hand Forged
INDIVIDUALLY TESTED

No. 800 DRILL FOR HAND USE

Last Longer
Cut Faster

Patented "V-Flat" Point

Bull Points

Increase your SALES and PROFITS with these reliable tools. They bring repeat orders.

Ask for catalog showing our Star Drills for Hand Use and Power Hammers, Stone Points, Chisels, Punches, Socket Wrenches, Washer Cutters, File Cleaners and a Clamp for every purpose.

THE CINCINNATI TOOL CO.
Established 1879
Montgomery Ave., Cincinnati, Ohio

Drills, Ratchet

(See "Ratchets and Ratchet Drills")

Drills Reciprocating

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Drills, Spring Hammer

Cincinnati Tool Co., The, Cincinnati, Ohio.
Wodac Electric Tool Corp., Chicago, Ill.

Drills, Star Point

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Arro Expansion Bolt Co., Marion, Ohio.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Expansion Bolt Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Crescent Tool Co., Jamestown, N. Y.
Diamond Expansion Bolt Co., Garwood, N. J.
Drew, C., & Co., Kingston, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Millers Falls Co., Greenfield, Mass.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corporation), New York, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Rawlplug Co., Inc., The, New York, N. Y.
Syntron Co., Pittsburgh, Pa.
U. S. Expansion Bolt Co., New York, N. Y.
Vulcan Tool Mfg. Co., Quincy, Mass.
Wodac Electric Tool Corp., Chicago, Ill.

Drills, Stone

American Swiss File & Tool Co., Elizabeth, N. J.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, O.
Drew, C., & Co., Kingston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Loomis Machine Co., Tiffin, Ohio.
Mall Tool Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Portable Power Tool Corp., Warsaw, Ind.
Stanley Rule & Level Plant, The, New Britain, Conn.
U. S. Expansion Bolt Co., New York, N. Y.
Vlchek Tool Co., The, Cleveland, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drills, Straight Shank and Taper Shank

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Tap

Alvord-Polk Tool Co., Millersburg, Pa.
Colton, Arthur, Co., Detroit, Mich.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Track

Bay State Tap & Die Co., Mansfield, Mass.
Chicago Pneumatic Tool Co., New York.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Goodell-Pratt Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Latrobe Tool Co., Latrobe, Pa.
Lowell Wrench Co., Worcester, Mass. (Hand ratchet)
Morse Twist Drill & Machine Co., New Bedford, Mass.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Syntron Co., Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Whitman and Barnes, Inc., Detroit, Mich.

ARMSTRONG
Drop Forged
STAR DRILLS

Drop forged from special steel, hardened, heat treated and tempered. Special design, cuts fast, holds sharpness.

All Sizes by 1.16" to 2"

One of the few complete lines of standard quality and price. The line to sell.

ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
332 N. Francisco Ave., CHICAGO, U. S. A.
Write for Circular.

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- TWIST DRILLS
- REAMERS
- CUTTERS
- TAPS - DIES
- DRILL CHUCKS
- SPECIAL TOOLS

STANDARD TOOL CO.

THE STANDARD TOOL CO.
CLEVELAND
New York — Detroit — Chicago

Drills, Twist

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Star Bit & Tool Co., Rockford, Ill.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Twist, Flat

Ace Drill Co., Detroit, Mich.
Alvord-Polk Tool Co., Millersburg, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
New Process Twist Drill Co., Taunton, Mass.
Standard Tool Co., Cleveland, Ohio.
Tallman Manufacturing Co., Shelbyville, Ill.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Twist, Wire Gauge

Ace Drill Co., Detroit, Mich.
Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Colton, Arthur, Co., Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Drills, Well

Chicago Pneumatic Tool Co., New York.
Dobbins Core Drill Co., Inc., Long Island City, N. Y.
Loomis Machine Co., Tiffin, Ohio.

Drills and Countersinks Combined

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Bradley Washfountain Co., Milwaukee.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Slocomb, J. J., Co., Providence, R. I.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Drinking Fountains

(See "Fountains, Drinking")

Drivers, Drift Bolt and Spike

American Swiss File & Tool Co., Elizabeth, N. J.

Drives, Chain

(See "Chain, Transmission")

Drives, Friction Disc

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Drives, Power, Electric

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Borden Co., The, Warren, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Foote Gear Works, Inc., Chicago, Ill.
Gears and Forgings, Inc., Cleveland, Ohio.
General Electric Co., Schenectady, N. Y.
Manley Products Corp., York, Pa.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Drives, Power, Gasoline Motor

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Chicago Belting Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Foote Gear Works, Inc., Chicago, Ill.

Drives, Rope

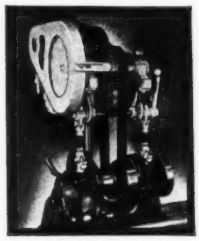
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Chicago Rawhide Mfg. Co., The, Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Mfg. Co., Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Sutorbilt Corporation, Los Angeles, Calif.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Drives, Short Belt

Baldwin Belting & Leather Co., Inc., New York, N. Y.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Downs, I. G., Denver, Colo.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Link-Belt Co., Chicago, Ill.
Manhattan Rubber Mfg. Co., Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manley Products Corp., York, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Rockwood Mfg. Co., The, Indianapolis, Ind.

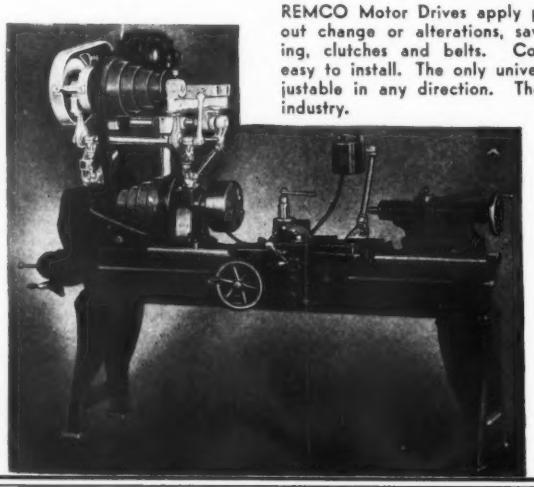
(Continued on Page 94)

REMCO
MOTOR DRIVE



For applying electric power direct to lathes, shapers, milling machines, drill presses, grinders, hack saws and other machine tools.

REMCO Motor Drives apply power to the machine, without change or alterations, saving the cost of line shafting, clutches and belts. Compact, simple construction, easy to install. The only universal motor drive that is adjustable in any direction. The new drive for modernized industry.



DISTRIBUTORS: One Remco drive, being universal, fits many sizes of machine tools. Small stock supplies all requirements. Wide market—good profits. Ask for full details.

MANLEY PRODUCTS CORPORATION
YORK, PA.

"D-V" Matched Quality Drives Have Set New Standards of Quality and Performance

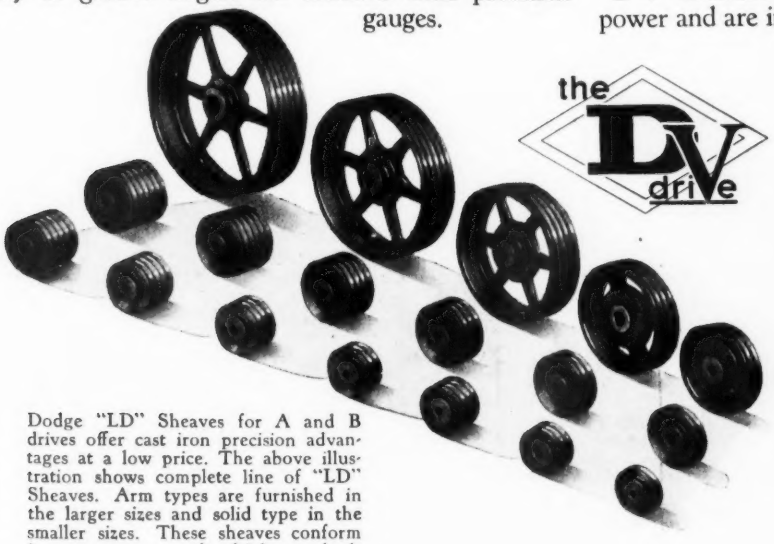
"D-V" Matched Quality Drives combine precision sheaves, belts selected because of their peculiar adaptability for power transmission service and experienced engineering insuring the selection of the proper drive for every service.

Dodge "D-V" Sheaves are made of special formula grey iron to insure smooth, precision grooves and long belt life. Accuracy of dimensions and uniformity of groove angles are checked with precision gauges.

Hundreds of thousands of dollars were invested in modern machine tool equipment for the exclusive production of quality sheaves.

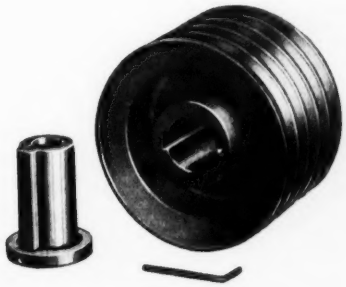
Large factory and distributor stocks insure prompt service.

"D-V" Drives are well balanced, transmit maximum power and are inexpensive to maintain.



the DV drive

Dodge "LD" Sheaves for A and B drives offer cast iron precision advantages at a low price. The above illustration shows complete line of "LD" Sheaves. Arm types are furnished in the larger sizes and solid type in the smaller sizes. These sheaves conform in every way to the high standards adopted in the manufacture of heavy duty sheaves.

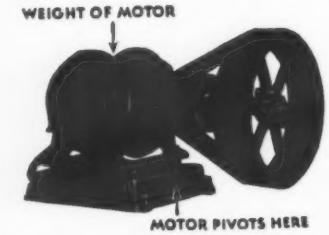


The above illustration shows a Dodge "LD" solid type sheave for A and B Drives with interchangeable bushing. Both sheaves and bushings are packed in individual cartons properly labeled to provide quick identification of contents.

Write for new, simplified Data Book A-199. All information necessary to insure proper selection of drives in 32-pages.

DODGE MANUFACTURING CORPORATION, Mishawaka, Indiana

ROCKWOOD
SHORT-CENTER FLAT BELT **DRIVE**



STEADILY GAINING IN POPULARITY

The most practical, most efficient way to transmit belt power from a motor to driven machine or lineshaft. The weight of the pivoted motor **automatically** maintains **uniform** belt tension, assuring dependable power and uniform driven speeds. Thousands of ROCKWOOD Drives now in service, but the market has scarcely been scratched. Investigate. Your customers are interested!

WHY NOT PUT IN A STOCK?

ROCKWOOD floor drive bases for motors up to 100 H. P.; ceiling bases up to 75 H. P.; vertical bases up to 50 H. P. Special sizes quickly to order. Write today for recommended assortment and prices.

THE ROCKWOOD MFG. CO.
Division of General Fibre Products, Inc.
INDIANAPOLIS, INDIANA

Drum Pulleys
(See "Pulleys, Drum")

Drums or Barrels, Shipping, Steel
(See "Barrels and Drums, Steel")

Dryers, Metal Parts, Electric Portable

Hunter, James, Machine Co., North Adams, Mass.
Ideal Commutator Dresser Co., Sycamore, Ill.

Dryers, Mould, Portable, Electric

Ideal Commutator Dresser Co., Sycamore, Ill.
R. S. Products Corp., Philadelphia, Pa.

Dryers, Sand

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Hersey Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Punxsutawney Foundry and Machine Co., Punxsutawney, Pa.
R. S. Products Corp., Philadelphia, Pa.

Duck, Cotton

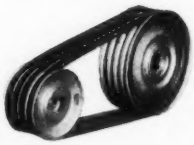
Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Robinson, D., & Sons, Detroit, Mich.

Duck, Waterproof

Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick Mfg. Co., The, Toledo, Ohio.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Robinson, D., & Sons, Detroit, Mich.
Safety Equipment Service Co., Cleveland.
Upson-Walton Co., The, Cleveland, Ohio.

ROCKWOOD V-BELT DRIVES

(*Licensee Pat. No. 1,662,511*)



A COMPLETE LINE

ROCKWOOD offers a complete line of V-Belt Drives for all power applications from fractional H. P. to 350 H. P.

Large stocks of ROCKWOOD Sheaves (steel and cast iron) and ROCKWOOD V-Belts insure prompt deliveries.

Write today for handy catalog, listing sizes and practical drive combinations. Our stocking dealer assortment will interest you.

THE ROCKWOOD MFG. CO.
Division of General Fibre Products, Inc.
INDIANAPOLIS, INDIANA

Drives, Short Belt
(*Continued from Page 92*)

Sutorbilt Corporation, Los Angeles, Calif.
Schieren, Chas. A., Co., New York, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Williams, I. B., & Sons, Dover, N. H.
Wood's, T. B. Sons Co., Chambersburg, Pa.

Drives, "V" Belt

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Dayton Rubber Mfg. Co., The, Dayton, O.
Dick, R. & J., Co., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Gates Rubber Co., The, Denver, Colo.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Himmelein & Bailey, Inc., Camden, N. J.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manley Products Corp., York, Pa.
Pyott Foundry & Machine Co., Chicago.
Raniville, F., Co., Grand Rapids, Mich.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Sutorbilt Corporation, Los Angeles, Cal.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.
Wood's, T. B., Sons Co., Chamberburg, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Drives, Variable Speed
(See "Transmissions, Variable Speed")

Jones
V-BELT DRIVES

A complete range of Jones Standard V-Belt Sheaves, Light Duty V-Belt Sheaves and Standard V-Belts (all licensed under Geist Patent No. 1,662,511) available for sale through distributors. Jones High Test Cast Iron Sheaves are made in all sizes for every type of flexible belt drive. They are accurately turned and carefully polished to prevent belt wear, and are smooth running. The belts measure up to the highest performance standards.

Prices and distributor discounts on application. A Jones District Office is near you.

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4449 Roosevelt Road Chicago, Ill.
Offices in Principal Cities.

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Osborn Mfg. Co., The, Cleveland, Ohio.

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Diehl Mfg. Co., Elizabethport, N. J.
General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.

Edgers, Metal Working

DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.

Edgers, Side

Bernz, Otto, Co., Inc., Rochester, N. Y.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Farquhar, A. B., Co., Ltd., York, Pa.

Edgers, Woodworking

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Diamond Iron Works, Inc., Minneapolis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hermance Machine Co., Williamsport, Pa.
Lane Mfg. Co., Montpelier, Vt.
Mattison Machine Works, Rockford, Ill.
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Titeflex Metal Hose Corp., Newark, N. J.
United States Machine Co., Williamsport, Pa.
Wallace, J. D., & Co., Chicago, Ill.

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A PROFITABLE MARKET FOR
TEXROPE DRIVES
Every plant on which you call is a present or prospective user of Texrope drives. There are literally hundreds of applications for these popular transmission drives. Their efficiency, economy, cleanliness and smooth operation have won for them universal acceptance.
In all principal cities trained engineers will gladly assist you on any transmission sales problems you may have.
If you need quick action . . . quick delivery . . . remember that our major factory stocks are conveniently located in—
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TEXROPE DIVISION
Milwaukee, Wis.
INSIST ON
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TEXROPE DRIVES
ORIGINATED AND PATENTED
BY ALLIS-CHALMERS MFG. CO.

Edges, Straight

Atkins, E. C., and Co., Indianapolis, Ind.
Mattison Machine Works, Rockford, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.

Ejectors

American Injector Co., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hennebohle, Frank, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Randle Machinery Co., The, Cincinnati, O.
Schutte & Koerting Co., Philadelphia, Pa.
Tranter Mfg. Co., Pittsburgh, Pa.
Watson & McDaniel Co., Philadelphia, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Ejectors, Acid

American Injector Co., Detroit, Mich.
Hennebohle, Frank, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.

Ejectors, Sewage

Economy Pumping Machinery Co., Chicago.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hennebohle, Frank, Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Yeomans Brothers Co., Chicago, Ill.

Elbows, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago.
Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Messmer Brass Co., St. Louis, Mo.
M & H Valve & Fittings Co., Anniston, Ala.
New York Brass Foundry Co., New York.
Nugent, Wm. W., & Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse.
Parker Appliance Co., The, Cleveland, O. (For tube)
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Tube-Turns, Inc., Louisville, Ky.
Williams, D. T., Valve Co., The, Cincinnati.

Elbows, Pipe, Cast Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Elbows, Pipe, Malleable Iron

Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Stockholm Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

PENBERTHY PRODUCTS

PENBERTHY "XL-96" EJECTORS

Lifts 22 to 25 feet. Elevates 25 to 100 feet, 30 to 100 pounds pressure. The lifting and elevating power is so combined that it unquestionably makes the best device of its kind. The principle and power contained in so small, handy and economical an instrument continually suggest new uses. We can also furnish special ejectors for unusual service. Write for catalog.

PENBERTHY INJECTOR CO.
Detroit, Mich. Windsor, Ont.
Manufacturers of Quality Products Since 1886

Elbows, Pipe, Steel

Bonney Forge & Tool Works, Allentown, Pa.
Central Forging Co., The, Catawissa, Pa.
Crane Co., Chicago, Ill. (Cast and forged)
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio. (Cast and forged)
Kerotest Manufacturing Co., Pittsburgh, Pa. (Forged)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Malleable Iron Fittings Co., Branford, Conn.
Midwest Piping & Supply Co., St. Louis.
Mitchell, W. K., & Co., Inc., Philadelphia.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
South Chester Tube Co., Chester, Pa.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky. (Forged)
Walworth Co., New York, N. Y. (Cast and forged)
Watson-Stillman Co., The, Roselle, N. J.

Elbows, Street

Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hydraulic Press Mfg. Co., Mount Gilead, O.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Malleable Iron Fittings Co., Branford, Conn.
M & H Valve & Fittings Co., Anniston, Ala.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Elbows, Union

Acheson Manufacturing Co., Rankin, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Milwaukee Valve Co., Milwaukee, Wis.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Electrodes, Welding

Air Reduction Sales Co., New York, N. Y.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Ampco Metal, Inc., Milwaukee, Wis.
Bastian-Blessing Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Linde Air Products, Inc., The, New York.
Lincoln Electric Co., The, Cleveland, Ohio.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Speer Carbon Co., St. Marys, Pa.
Sutorbilt Corporation, Los Angeles, Calif.
Torchweld Equipment Co., Chicago, Ill.

Elevators, Barrel

Barrett-Cravens Co., Chicago, Ill.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Fairfield Engineering Co., Marion, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Mey Chain Belt Co., Buffalo, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Elevators, Hand Power

Barrett-Cravens Co., Chicago, Ill.
Cardwell Machine Co., The, Richmond, Va.
Lewis-Shepard Co., Boston, Mass.
Minnich Machine Works, Landisville, Pa.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Speidel Elevator Corp., Reading, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Elevators, Pilers or Stackers, Portable

Barrett-Cravens Co., Chicago, Ill.
Cardwell Machine Co., The, Richmond, Va.
Chain Belt Co., Milwaukee, Wis.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Mathews Conveyor Co., Ellwood City, Pa.
Minnich Machine Works, Landisville, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
O. K. Clutch & Machinery Co., Columbia, Pa. (Portable contractors' elevators)
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Eliminators, Oil

(See "Oil Eliminators")

Emery and Other Abrasives (Cake, Powder, Flour and Grain)

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Behr-Manning Corp., Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.

Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Harrison & Co., Haverhill, Mass.
Karelsen, E., Inc., New York, N. Y. (Diamond powder)
Keystone Emery Mills, Philadelphia, Pa.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Walls Sales Corp., New York, N. Y.

End Mills

(See "Mills, End")

Ends, Bolt

Bethlehem Steel Co., Bethlehem, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Wrought Iron Co. of America, Lebanon, Pa.

Ends, Hose

Acheson Manufacturing Co., Rankin, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Electric Hose & Rubber Co., Wilmington, Del.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Mulconroy Co., Inc., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Standard Packing & Rubber Co., New York, N. Y.

Ends, Rod and Yoke

Acme Machine Products Co., Muncie, Ind.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Billings & Spencer Co., The, Hartford, Conn.
Upson-Walton Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Engines, Fire, Chemical

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston.
Boyer Fire Apparatus Co., Logansport, Ind. (On wheels)
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Harker Mfg. Co., Cincinnati, Ohio.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.

Engines, Fire, Hand

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Harker Mfg. Co., Cincinnati, Ohio.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguishser Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Worthington Pump and Machinery Corp., Harrison, N. J.

Engines, Hoisting, Gasoline

American Hoist & Derrick Co., St. Paul.
Dake Engine Co., Grand Haven, Mich.
Loane Engineering Co., Baltimore, Md.

Engines, Hoisting, Steam

American Hoist & Derrick Co., St. Paul.
Dake Engine Co., Grand Haven, Mich.
Farquhar, A. B., Co., Ltd., York, Pa.
Miller Machine Works, Springs, Pa.

Engines, Hydraulic

(See "Rams, Hydraulic")

Engines, Oil Well Drilling

Fairbanks, Morse & Co., Chicago, Ill.

Engines, Pumping

(See "Pumps, Engine")

Engines or Motors, Stationary — Gas, Gasoline, Kerosene and Oil

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul.
Barrett-Cravens Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Briggs & Stratton Corp., Milwaukee, Wis.
Chicago Pneumatic Tool Co., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Loane Engineering Co., Baltimore, Md.
Machine Shop Equipment Co., Grove City, Pa.
Micro Corp., The, Bettendorf, Iowa. (Oil)
Miller Improved Gas Engine Co., Springfield, Ohio.
Nelson Bros. Co., Saginaw, Mich. (Gasoline and kerosene)
Power Manufacturing Co., The, Marion, O.
Union Diesel Engine Co., Oakland, Calif.
Worthington Pump and Machinery Corp., Harrison, N. J.

Equipment, First Aid

(See "Cabinets and Equipment, First Aid")

Equipment, Painting and Whitewashing

(See "Machines and Equipment, Painting and Whitewashing")

Excavators, Gravel, Drag Line

American Hoist & Derrick Co., St. Paul.
Conco Engineering Works, Mendota, Ill.
Godfrey Conveyor Co., Elkhart, Ind.
Link-Belt Co., Chicago, Ill.
Marion Steam Shovel Co., The, Marion, O.

Exhausters, Gas

Allen & Billmyre Co., Inc., New York.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Coppus Engineering Corp., Worcester, Mass.
De Laval Steam Turbine Co., Trenton, N. J.
Farquhar, A. B., Co., Ltd., York, Pa.
Federal Products Corp., Providence, R. I.
Foster Wheeler Corp., New York, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.
Sutorbilt Corporation, Los Angeles, Calif.
Worthington Pump and Machinery Corp., Harrison, N. J.

Exhausters, Shavings and Dust

(See "Collectors, Exhausters [or Blower Systems] for Shavings and Dust")

Expanders, Coupling, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Federal Products Corp., Providence, R. I.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Safety Fire Extinguisher Co., The, New York, N. Y.

Expanders, Flue and Tube

Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
International Nulyp Tool Corp., Oswego, N. Y.
Key Boiler Equipment Co., East St. Louis, Ill.
Plomb Tool Co., Los Angeles, Calif.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago.

Explosives

Hercules Powder Co., Inc., Wilmington, Del.

Extensions, Bit

Goodell-Pratt Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.

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The pump is outside the liquid
Won't gum up or corrode
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Associated with
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Extensions, Drill

Farquhar, A. B., Co., Ltd., York, Pa.
Union Twist Drill Co., Athol, Mass.

Extensions, Tap

Allen Mfg. Co., The, Hartford, Conn.

Extinguishers, Fire

Allen, W. D., Mfg. Co., Chicago, Ill.
American-La France and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston, Mass.
C-O-Two Fire Equipment Co., Newark, N. J.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Central Pipe Fabricating Co., Atlanta, Ga.
Chapin, R. E., Co., The, Batavia, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Harker Mfg. Co., Cincinnati, Ohio.

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Merchant & Evans Co., Philadelphia, Pa.
Miller Peerless Manufacturing Co., Chicago, Ill.
Phoenix Fire Extinguisher Co., Norwich, Conn.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wil-X-Mfg. Corp., Brooklyn, N. Y.

Extinguisher, Fire, Liquid

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Badger Fire Extinguisher Co., Boston, Mass.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Harker Mfg. Co., Cincinnati, Ohio.
Knight & Thomas, Inc., Boston, Mass
Merchant & Evans Co., Philadelphia, Pa.
Pyrene Manufacturing Co., Newark, N. J.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wil-X-Mfg. Corp., Brooklyn, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Extractors, Bushing

(See "Removers, Bushing")

Extractors, Cotter Pin

American Swiss File & Tool Co., Elizabeth, N. J.
Goodell-Pratt Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.

Extractors, Grease and Oil

Barrett, Leon J., Co., The, Worcester, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Kieley & Mueller, Inc., New York, N. Y.
Milwaukee Steam Appliance Co., West Allis, Wis.
Rose, Frank, Mfg. Co., Hastings, Neb.
Schutte & Koerting Co., Philadelphia, Pa.

Extractors—Rivet, Bolt, Screw and Tap

American Swiss File & Tool Co., Elizabeth, N. J.
Bristol Co., The, Waterbury, Conn.
Cleveland Twist Drill Co., The, Cleveland.
Crescent Belt Fastener Co., New York.
Jay Tee Tool Sales Co., Cleveland, Ohio.
Manufacturers' Belt Hook Co., Chicago.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.

Eyelets, Terminal, and Tools

Schollhorn, Wm., Co., The, New Haven, Conn.

Facers, Spot

Alvord-Polk Tool Co., Millersburg, Pa.
Gairing Tool Co., The, Detroit, Mich.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Whitman and Barnes, Inc., Detroit, Mich.

Facings, Clutch

Asbestos Mfg. Co., Huntington, Ind.
Burrell Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Facings, Foundry

Dixon, Joseph, Crucible Co., Jersey City, N. J.
Globe Steel Abrasive Co., The, Mansfield, Ohio.
Pittsburgh Crushed Steel Co., Pittsburgh.
Superior Flake Graphite Co., Chicago, Ill.

Fans, Electric

American Blower Corp., Detroit, Mich.
Barber-Colman Co., Rockford, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Century Electric Co., St. Louis, Mo. (Portable ceiling ventilating fans)
Champion Blower and Forge Co., Lancaster, Pa.
Coppus Engineering Corp., Worcester, Mass.
Diehl Mfg. Co., Elizabethport, N. J.
Electric Blower Co., Boston, Mass.
Emerson Electric Mfg. Co., The, St. Louis, Mo.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Marathon Electric Mfg. Co., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Meier Electric & Machine Co., The Indianapolis, Ind.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Ruemelin Mfg. Co., Milwaukee, Wis.
Signal Electric Mfg. Co., Menominee, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
Sturtevant, B. F., Co., Boston, Mass.
Torrington Mfg. Co., The, Torrington, Conn.
Wagner Electric Corp., St. Louis, Mo.

Fans, Exhaust

American Blower Corp., Detroit, Mich.
American Propeller Co., The, South Bend, Ind.
Bendix Products Corporation, South Bend, Ind.
Binks Manufacturing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burt Manufacturing Co., The, Akron, O.
Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Coppus Engineering Corp., Worcester, Mass.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.

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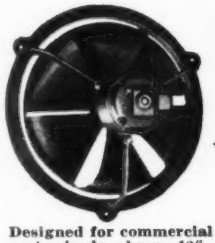

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Ruemelin Mfg. Co., Milwaukee, Wis.
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Simplex Spray Equipment Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Sturtevant, B. F., Co., Hyde Park, Boston.
Sutorbilt Corporation, Los Angeles, Calif.
Torrington Mfg. Co., The, Torrington, Conn.
Wagner Electric Corp., St. Louis, Mo.

Fasteners and Hooks, Belt

Armstrong-Bray & Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown, D. P., & Co., Philadelphia, Pa.
Capen Belting & Rubber Co., St. Louis.
Chicago Rawhide Mfg. Co., The, Chicago.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Couse & Bolton, Inc., Newark, N. J.
Crescent Belt Fastener Co., New York.
Detroit Belt Lacer Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Edwards, H. D., & Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Jackson, Isaac, Belt Fastener Co., New York, N. Y.
Jewell Belt Hook Co., New Britain, Conn.
Johnson Belting Co., New York, N. Y.
Jones, H. H., Lancaster, N. H.
Manheim Mfg. & Belting Co., Manheim, Pa.
Manufacturers' Belt Hook Co., Chicago.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Republic Steel Corp., Youngstown, Ohio.
Russell Mfg. Co., Middletown, Conn.
Safety Belt-Lacer Co., Toledo, Ohio.

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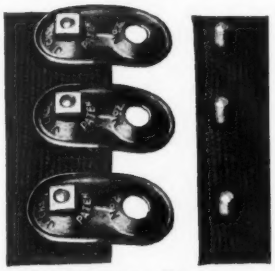

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No. 3	10 to 16 " "
No. 4	18 to 24 " "
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Washburn Co., The, Worcester, Mass.
Webb, J. A., Belting Co., Inc., Buffalo.
Zimmer, Conrad, Belting Co., New York.

Faucets

(For faucets not included in the following classifications, see "Cocks and Faucets")

Faucets, Petroleum

Haydenville Co., The, Haydenville, Mass.
Imperial Brass Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Sargent & Co., New Haven, Conn.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Faucets, Radiator Filling, Self-Closing

Imperial Brass Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Morrison Bros., Dubuque, Iowa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Feeders, Boiler Compound

Fisher Governor Co., The, Marshalltown, Iowa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Feeders, Boiler Oil

General Brass Co., Detroit, Mich.

Feeders, Boiler Water

Burrows, F. A., Co., York, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
Ingersoll-Rand Co., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
McDonnell & Miller, Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Strong, Carlisle & Hammond, Cleveland.
Wright-Austin Co., Detroit, Mich.

Feeders, Furnace

Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Feeders, Graphite Lubricant

Lunkenheimer Co., The, Cincinnati, Ohio.

Feeds, Punch Press, Automatic

Federal Press Co., Elkhart, Ind.
Little, F. J., Machine Co., Chicago, Ill.
Wittek Mfg. Co., Chicago, Ill.

Feeds, Sawmill Carriage

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

Felt, Asphalt

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Johns-Manville Sales Corp., New York.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Ruberoid Co., The, New York, N. Y.

Felt, Building

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Johns-Manville Sales Corp., New York.
National Asbestos Mfg. Co., The, Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Felt, Hair

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Booth Felt Co., Inc., Brooklyn, N. Y.
Dallett Co., The, Philadelphia, Pa.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Johns-Manville Sales Corp., New York.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Felt, Slaters'

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Ruberoid Co., The, New York, N. Y.

Felt, Tarred

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Johns-Manville Sales Corp., New York.
Ruberoid Co., The, New York, N. Y.

Felt, Wool

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Booth Felt Co., Inc., Brooklyn, N. Y.
Carey, Phillip, Co., The, Lockland, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.

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for steel drums, barrels, etc. Has metal to metal seat. No packing to dry out. Closes automatically. Can be locked open or closed.

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Giant Mfg. Co., Council Bluffs, Iowa.
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Wheeling Steel Corp., Wheeling, W. Va.

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Atlas Brass Foundry Co., The, Columbus, Ohio.
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Crescent Belt Fastener Co., New York.
Everitt Co., The, Boston, Mass.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Midland Mfg. Co., Ft. Worth, Tex.
Mueller Co., Decatur, Ill.
Nunn Brass Works, Rochester, N. Y.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
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Torrington Mfg. Co., The, Torrington, Conn.

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National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
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Ferrules, Condenser

Everitt Co., The, Boston, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
National Copper & Smelting Co., Cleveland, Ohio.
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Parallel Round
Spark Plug
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H. D. B. Corporation, Chicago, Ill.
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Nicholson File Co., Providence, R. I.
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American Swiss File & Tool Co., Elizabeth, N. J.
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3 ***Factory Cooperation***—Through definite planned factory help.

4 ***Publicity***—Consumer advertising concentrated in distributors' market.

5 ***Quality Products*** — Quality constantly maintained and guaranteed.

Adopted as Price List effective on and after April 2, 1923 — **LIST PRICE PER DOZEN**

KIND	Cut	Inch 3	4	5	6	7	8	9	10	12	14	16	18
MILL	Bast	3.00	3.00	3.20	3.50	3.90	4.30	4.90	5.60	7.50	10.70	14.70	20.20
	2d Cut	.....	3.50	3.80	4.00	4.60	4.90	5.80	6.40	8.60	12.20	16.80	.....
	Smooth	.....	.....	.....	4.50	.....	5.40	.....	7.00	9.40	13.10	17.90	.....
MILL (1 Round Edge)	Bast	.....	.....	.....	3.90	4.40	4.80	5.50	6.30	8.40	12.00	.....	.....
MILL (1 Round Edge)	2d Cut	.....	.....	.....	4.50	5.20	5.50	6.50	7.20	9.70	.....	.....	.....
MILL (2 Round Edge)	Bast	.....	.....	.....	4.40	4.90	5.40	6.10	7.00	9.40	.....	.....	.....
MILL (2 Round Edge)	2d Cut	.....	.....	.....	5.00	.....	6.10	.....	8.00	10.80	.....	.....	.....
MILL BLUNT	Bast	.....	.....	.....	3.90	4.30	4.90	.....	6.70	.....	.....	.....	.....
MILL BLUNT	2d Cut	.....	.....	.....	4.60	4.90	5.80	.....	7.80	.....	.....	.....	.....

	Inch 3	3½	4	4½	5	5½	6	7	8	9	10	12
TAPERS	2.10	2.10	2.20	2.40	2.60	3.00	3.40	4.30	5.40	.....	8.10	12.50
SLIM TAPERS	2.10	2.10	2.20	2.30	2.50	2.90	3.10	3.80	4.50	.....	6.40	9.50
EXTRA SLIM TAPERS	.....	.....	2.20	2.30	2.50	2.90	3.10	3.80	4.50	.....	.....	.....
DOUBLE EXTRA SLIM TAPERS	.....	.....	2.20	2.30	2.50	2.90	3.10	3.80	4.50	.....	.....	.....
HAND SAW BLUNT	.....	.....	2.60	3.00	3.40	.....	4.30	5.40	6.60	.....	.....	.....
SLIM HAND SAW BLUNT	.....	.....	2.50	.....	3.10	.....	3.80	.....	5.40	.....	.....	.....
BAND SAW (Blunt and Taper)												
Regular	.....	.....	2.90	3.10	3.50	.....	4.70	5.60	6.70	.....	9.70	.....
Slim	.....	.....	.....	.....	.....	.....	3.90	.....	5.30	.....	.....	.....
PIT SAW	.....	.....	4.80	5.40	5.40	6.10	6.10	7.00	7.50	.....	.....	.....
DOUBLE ENDER	.....	.....	.....	.....	.....	.....	.....	3.50	3.90	4.40	4.90	6.00
CANT SAW	.....	.....	.....	.....	4.70	.....	5.40	6.10	6.40	.....	8.70	11.40
PLANER KNIFE	.....	.....	.....	.....	.....	.....	.....	.....	6.40	.....	8.60	.....
CROSS CUT	.....	.....	.....	.....	.....	.....	6.10	.....	7.50	8.50	9.10	11.80

KIND	Cut	Inch 4	5	6	7	8	9	10	12	14	16	18	20
FLAT	Bast	3.70	3.90	4.30	4.80	5.30	6.30	7.00	9.70	13.30	17.80	23.90	31.50
	2d Cut	4.30	4.60	4.80	5.50	6.10	7.20	8.10	11.00	15.30	20.10	26.80	.....
	Smooth	4.70	4.90	5.30	6.10	6.60	7.90	8.70	12.10	16.70	22.30	29.20	.....
HAND	Bast	3.70	3.90	4.30	4.90	5.40	6.70	7.50	10.70	15.00	20.10	26.80	35.10
	2d Cut	4.30	4.70	5.10	5.80	6.30	7.80	8.70	12.30	17.00	22.80	29.90	.....
	Smooth	4.80	5.30	5.60	6.30	6.70	8.30	9.40	13.50	18.20	24.20	31.50	.....
SQUARE	Bast	3.80	4.10	4.60	5.10	5.50	.....	7.40	10.20	13.90	18.70	25.10	32.80
	Bl't Bast	.....	.....	.....	.....	7.40	.....	10.20	13.90	18.70	25.10	32.80	39.30
	2d Cut	4.60	4.80	5.10	5.80	6.30	.....	8.50	11.50	16.10	21.20	28.20	.....
	Smooth	4.90	5.30	5.50	6.30	7.00	.....	9.10	12.80	17.50	23.30	30.40	.....
HAND FINISHING	2d Cut	.....	.....	.....	.....	.....	.....	.....	15.20	20.60	.....	.....	.....
	Smooth	.....	.....	.....	.....	.....	.....	.....	16.20	21.70	.....	.....	.....
LONG ANGLE LATHE		.....	.....	.....	.....	.....	.....	8.60	12.20	16.80	22.70	.....	.....
LEAD FLOAT and WOOD FILES													
Flat		.....	.....	4.80	.....	6.30	.....	8.60	11.80	16.00	21.50	.....	.....
Half Round		.....	.....	7.00	.....	8.50	.....	10.70	14.10	18.50	24.70	.....	.....
THREE SQUARE	Bast	4.80	5.40	6.10	7.00	7.50	.....	9.10	11.80	15.50	20.60	27.50	.....
	2d Cut	5.60	6.10	6.70	7.70	8.30	.....	10.10	13.00	17.00	22.50	29.90	.....
	Smooth	6.10	6.40	7.10	8.20	8.90	.....	10.70	13.90	18.30	24.20	32.00	.....
HALF ROUND	Bast	4.80	5.40	6.10	7.00	7.50	.....	9.10	11.80	15.50	20.60	27.50	.....
	2d Cut	5.60	6.10	6.70	7.70	8.30	.....	10.10	13.00	17.00	22.50	29.90	.....
	Smooth	6.10	6.40	7.10	8.20	8.90	.....	10.70	13.90	18.30	24.20	32.00	.....
ROUND	Bast	3.00	3.20	3.50	3.90	4.30	4.90	5.60	7.50	10.70	14.70	20.20	27.40
	Bl't Bast	.....	.....	.....	.....	5.60	.....	7.50	10.70	14.70	.....	.....	.....
	2d Cut	3.50	3.80	4.00	4.60	4.90	5.80	6.40	8.60	12.20	16.80	22.70	.....
	Smooth	3.90	4.10	4.50	4.90	5.40	6.30	7.00	9.40	13.10	17.90	24.30	.....
UTILITY Flat		.....	.....	6.60	.....	9.40	.....	11.25	15.00	19.70	23.90	.....	.....
UTILITY Half Round		.....	.....	8.45	.....	11.25	.....	13.20	16.90	22.50	29.90	.....	.....

KIND	Cut	Inch 4	5	6	8	10	12	14	16
WARDING	Bast	4.00	4.50	4.90	6.40	8.70	.....	.....	.....
	2d Cut	4.80	5.30	5.90	7.50	10.10	.....	.....	.....
	Smooth	5.40	5.80	6.40	8.20	11.00	.....	.....	.....
KNIFE	Bast	5.40	6.10	6.90	8.50	10.10	13.70	.....	.....
	2d Cut	6.10	6.70	7.50	9.10	11.50	15.20	.....	.....
	Smooth	6.40	7.10	7.90	9.50	12.30	16.10	.....	.....
PILLAR	Bast	.....	.....	4.30	5.40	7.50	10.70	15.00	20.10
	2d Cut	.....	.....	5.10	6.30	8.70	12.30	.....	.....
	Smooth	.....	.....	5.60	6.70	9.40	13.50	.....	.....

KIND	Cut	Inch 6	8	10	12	14	16
CABINET FILES		8.10	10.10	13.70	18.70	24.80	.....
CABINET RASPS	2d Cut	10.10	12.80	17.50	22.80	29.60	.....
	Smooth	11.70	15.50	20.70	26.80	33.90	.....
HALF ROUND WOOD RASPS	Bast	8.10	10.10	13.70	18.70	24.80	32.90
	Smooth	10.10	13.70	18.70	24.80	32.90	43.60
FLAT WOOD RASPS	Bast	.....	9.40	12.80	17.50	23.20	30.80
	Smooth	.....	12.80	17.50	23.20	30.80	40.90

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Simonds Saw and Steel Co., Fitchburg, Mass.
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Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
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Heller Brothers Co., Newark, N. J.
Nicholson File Co., Providence, R. I.
Sandvik Saw & Tool Corp., Minneapolis.
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Hergi Mfg. Co., The, Bridgeport, Conn.
Pratt & Whitney Co., Hartford, Conn.
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U. S. Electrical Tool Co., The, Cincinnati.
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Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

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Kerotest Manufacturing Co., Pittsburgh.
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Mueller Brass Co., Port Huron, Mich.
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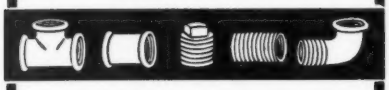

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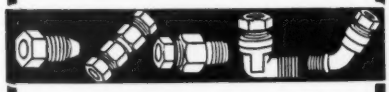

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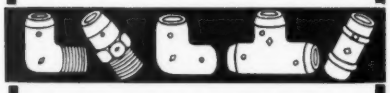

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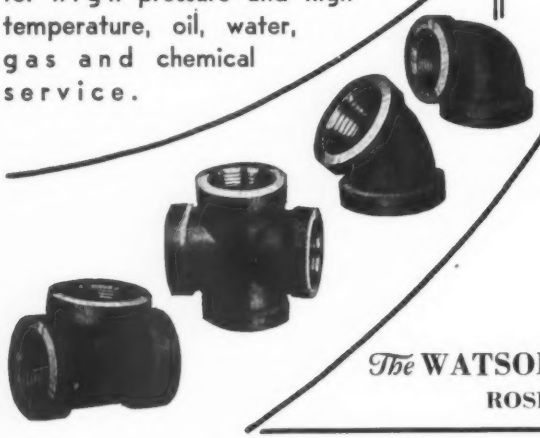

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Semler Co., Jeannette, Pa.
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Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Companion

Clow, James B., Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kuhns Bros. Co., Dayton, Ohio.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., Boston, Mass.

Flanges, Pipe, Curved

Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles Co., Philadelphia, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Pipe, Floor

Atlas Brass Foundry Co., The, Columbus, Ohio.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Moore Flange Corp., New York, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Nunn Brass Works, Rochester, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Robinson Mfg. Co., The, Cleveland, Ohio.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Malleable Iron

Brunswick-Kroeschell Co., New Brunswick, N. J.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Reducing

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Semler Co., Jeannette, Pa.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fititngs Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Flanges, Pipe, Semi-Steel

Bate Boiler Efficiency Co., Conshohocken, Pa.
Crane Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Frederick Iron & Steel Co., The, Frederick, Md.
Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Flanges, Pipe, Steel

Bonney Forge & Tool Works, Allentown, Pa.
Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Mountville Mfg. Co., Mountville, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Flanges, Pipe, Union

(See "Unions, Flange")

Flanges, Pipe, Wrought Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Flanges, Tank

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Flanges, Welding

Air Reduction Sales Co., New York, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.

Flares, Truck

Toledo Pressed Steel Co., The, Toledo, O.

Flexible Shaft Machines

(See "Machines, Flexible Shaft")

Flexible Shafts

(See "Shafts, Flexible")

Floats, Aluminum

Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Empire Level Manufacturing Co., Milwaukee, Wis.
Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.

Floats, Copper

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Metal Spinning Co., Inc., Detroit.
Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.
Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Wright-Austin Co., Detroit, Mich.

Floats, Steel

Fisher Governor Co., The, Marshalltown, Iowa.
Harris, Arthur, & Co., Chicago, Ill.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Wright-Austin Co., Detroit, Mich.

Flux, Brazing

(See "Compounds and Fluxes, Brazing")

Flux, Foundry and Welding

Air Reduction Sales Co., New York, N. Y.
Anti-Borax Compound Co., Fort Wayne, Ind. (Welding flux only)
Atkins, E. C., and Co., Indianapolis, Ind.
Atlas Foundry Co., Irvington, N. J.
Bastian-Blessing Co., Chicago, Ill.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Chapin, W. R., Co., The, Indianapolis, Ind. (Welding compound)
Colmonoy, Inc., Las Nietos, Calif.
Consolidated Metal Corp., Detroit, Mich.
Cortland Welding Compound Co., Cortland, N. Y.
Dockson, C. H., Co., Detroit, Mich.
Harris, Arthur, & Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lincoln, Electric Co., The, Cleveland, O.
Linde Air Products, Inc., The, New York.
Modern Engineering Co., St. Louis, Mo.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Superior Flake Graphite Co., Chicago, Ill.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.

Flux, Galvanizing

Consolidated Metal Corp., Detroit, Mich.
Garden City Laboratory, Inc., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
United American Metals Corp., Brooklyn.

Flux, Soldering—Paste, Stick and Liquid

American Solder & Flux Co., Philadelphia.
Atkins, E. C., and Co., Indianapolis, Ind.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Burnley Battery & Mfg. Co., North East, Pa.
Consolidated Metal Corp., Detroit, Mich.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dunton, M. W., Co., The, Providence, R. I. (Liquids, salts and wire solder)
Everhot Mfg. Co., Maywood, Ill.
Garden City Laboratory, Inc., Chicago, Ill.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Great Lakes Chemical Works, Detroit.
Highland Electro Chemcal Mfg. Co., Connellsville, Pa.
Johnson Mfg. Co., Chicago, Ill.
Kester Solder Co., Chicago, Ill.
McGill Manufacturing Co., Valparaiso, Ind.
National Lead Co., New York, N. Y.
Ruby Chemical Co., The, Columbus, Ohio. (Liquid only)
Smith Welding Equipment Corp., Minneapolis, Minn.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Foot Guards

(See "Guards, Foot")

Forges and Furnaces, Brazing

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Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Diamond Iron Works, Inc., Minneapolis.
General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn.
Hones, Chas. A., Baldwin, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.

Forges, Brazing, Saw

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
R. S. Products Corp., Philadelphia, Pa.

Forges, Electric

Bellevue Industrial Furnace Co., Detroit.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
R. S. Products Corp., Philadelphia, Pa.

Forges, Gas and Oil

Bellevue Industrial Furnace Co., Detroit.
Buffalo Forge Co., Buffalo, N. Y.
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Macleod Co., The, Cincinnati, Ohio.
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Hauck Manufacturing Co., Brooklyn, N. Y.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
R. S. Products Corp., Philadelphia, Pa.

Forges, Rivet and Bolt

(See "Furnaces or Forges, Rivet and Bolt Heating")

Forks

(See "Hoes, Rakes and Forks")

Fountains, Drinking

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Ford's Porcelain Works, Perth Amboy, N. J.
General Electric Co., Schenectady, N. Y.
Jewett Refrigerator Co., Inc., The, Buffalo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Fountains, Wash, Industrial

Bradley Washfountain Co., Milwaukee.

Frames, Binder, Power Transmission

Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Frames, Grindstone

Standard Electrical Tool Co., The Cincinnati, Ohio.
Western Products, Inc., Newcastle, Ind.

Frames, Hacksaw

Armstrong-Blum Mfg. Co., Chicago, Ill.
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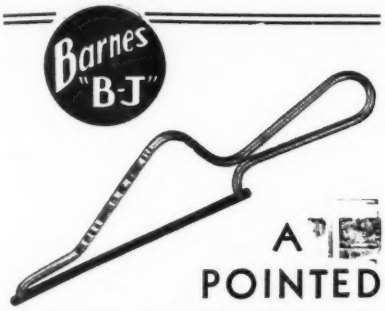

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Frames, Manhole and Handhole

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

Frames, Shaft Hanger

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Pulley Co., The, Philadelphia.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
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Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunter, James, Machine Co., North Adams, Mass.
Link-Belt Co, Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
S.K.F. Industries, Inc., Philadelphia, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
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Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Frames, Trap

(See "Covers and Frames, Trap")

Frames, Wall

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Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
S.K.F. Industries, Inc., Philadelphia, Pa.
Wood's T. B., Sons Co., Chambersburg, Pa.

Frames, Water Meter

(See "Covers and Frames, Water Meter")

Friction Clutches

(See "Clutches, Friction")

Frictions, Rawhide

Chicago Rawhide Mfg. Co., The, Chicago.
Hudson-Sharp Machine Co., Green Bay, Wis.
Ohio Valley Pulley Works, Inc., Maysville, Ky.

Frictions, Spur and Bevel—Paper, Fibre and Iron

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Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Link-Belt Co., Chicago, Ill.
Mason, Volney W., & Co., Boston, Mass.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Funnels and Measures

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Dover Stamping & Mfg. Co., Cambridge, Mass.
Geuder, Paeschke & Frey Co., Milwaukee.
Harris, Arthur, & Co., Chicago, Ill.
Huffman Manufacturing Co., The, Dayton, Ohio.
Rochester Can Co., Rochester, N. Y.

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(See "Forges and Furnaces, Brazing")

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Diamond Iron Works, Inc., Minneapolis.
General Electric Co., Schenectady, N. Y.
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Leeds & Northrup Co., Philadelphia, Pa.
Macleod Co., The, Cincinnati, Ohio.
Parker-Kalon Corp., New York, N. Y.
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Trent, Harold E., Co., Philadelphia, Pa.

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Aeroil Burner Co., Inc., West New York, N. J.
Allis Chalmers Manufacturing Co., Milwaukee, Wis.
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Campbell-Hausfeld Co., The, Harrison, O.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Klein, M., & Sons, Chicago, Ill. (Lead)
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
R. S. Products Corp., Philadelphia, Pa.
Rowell Mfg. Co., Appleton, Wis.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

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General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
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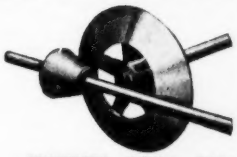

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Huffman Manufacturing Co., The, Dayton, Ohio.
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Pennsylvania Furnace & Iron Co., Warren, Pa.
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Roper, Geo. D., Corp., Rockford, Ill.
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Unique Manufacturing Co., Inc., Chicago.
Wall, P., Mfg., Supply Co., Pittsburgh, Pa.
Yost Manufacturing Co., Meadville, Pa.

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General Electric Co., Schenectady, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Macleod Co., The, Cincinnati, Ohio.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa.
Westinghouse Elect. & Mfg. Co., East Pittsburgh, Pa.

Furnaces, Welding

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Diamond Iron Works, Inc., Minneapolis.
Macleod Co., The, Cincinnati, Ohio.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

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General Electric Co., Schenectady, N. Y.
Jefferson Elec. Co., Bellwood, Ill.
Trico Fuse Mfg. Co., Milwaukee, Wis.

Fuses, Plug, Time Limit

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Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
General Electric Co., Schenectady, N. Y.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Trico Fuse Mfg. Co., Milwaukee, Wis.

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(See "Links, Fusible")

Gages

(See "Gauges")

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Linde Air Products, Inc., The, New York.
Pittsburgh Thermoline Co., Pittsburgh.

Gas Well Supplies, Rubber

(See "Oil and Gas Well Supplies, Rubber")

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Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
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Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Huhn Manufacturing Co., Bronx, N. Y.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Metallo Gasket Co., New Brunswick, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Auburn Leather Goods Co., Inc., Hartford, Conn.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Capen Belting & Rubber Co., St. Louis.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Chesterton, A. W., Co., Boston, Mass.
Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Johns-Manville Sales Corp., New York.
Keasbey & Mattison Co., Ambler, Pa.
Keating, E. F., Co., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubbing Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Co. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.

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BUTLER AND SEPVIVA STS. DEPARTMENT T
PHILADELPHIA, PA., U.S.A.

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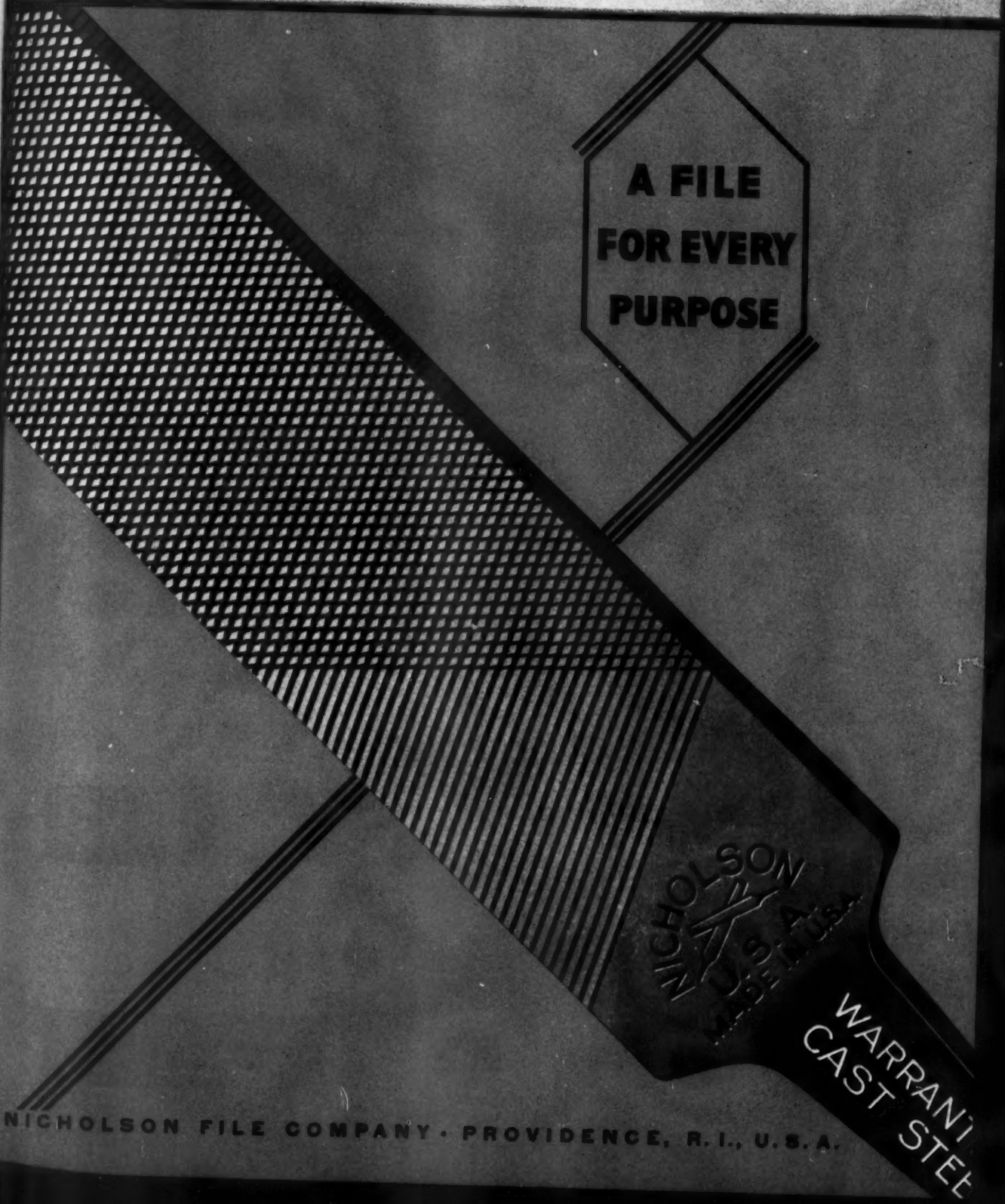

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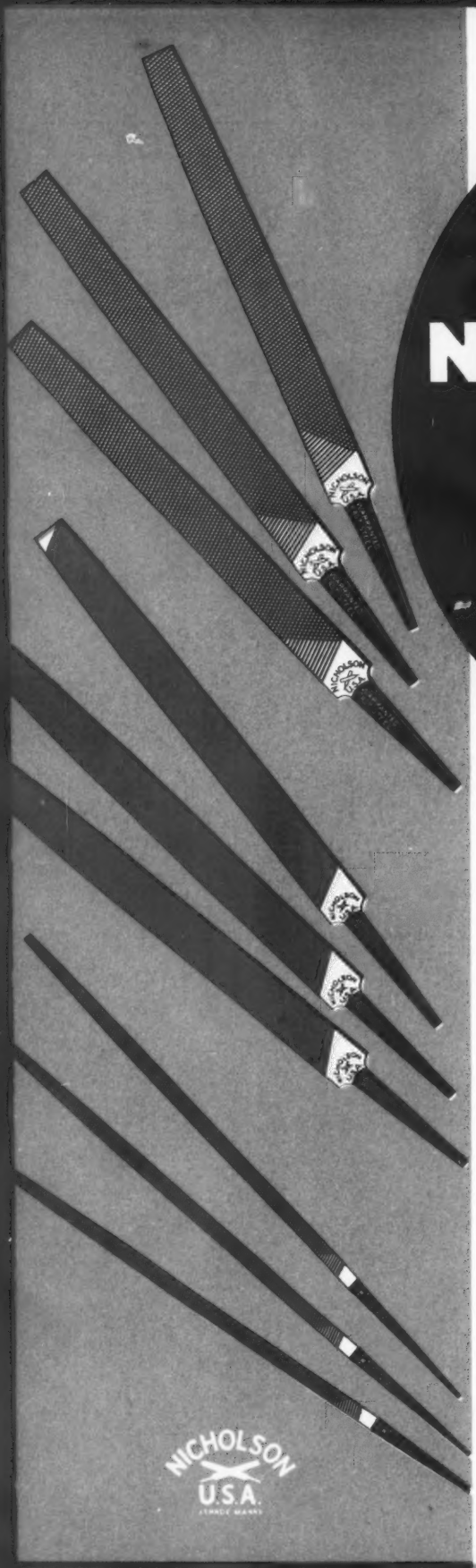

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Standard Asbestos Mfg. Co., of Chicago, Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Asbestos-Metallic

Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Darcoid Co., Inc., New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Johns-Manville Sales Corp., New York.
Keasbey & Mattison Co., Ambler, Pa.
Keating, E. F., Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., Passaic, N. J.
New York Belting & Packing Co., Passaic.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Boiler

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Capen Belting & Rubber Co., St. Louis, Mo.
Chesterton, A. W., Co., Boston, Mass.
Chicago Manufacturing Co., Chicago, Ill.
Darcoid Co., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetz Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Div., The, Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co., Chicago, Ill.
Standard Packing & Rubber Co., New York.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gaskets—Brass, Bronze, Copper, Lead, Steel

Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Manufacturing Co., Chicago, Ill.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Massachusetts Machine Shop, Inc., Boston, Mass.
Metallo Gasket Co., New Brunswick, N. J.
National Lead Co., New York, N. Y.
Quadriga Mfg. Co., The, Chicago, Ill.
Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
U. S. Mineral Wool Co., New York, N. Y.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Cork

Advance Packing & Supply Co., Chicago.
Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Wilcox Manufacturing Co., Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Fitzgerald Manufacturing Co., The, Torrington, Conn.
Jenkins Bros., New York, N. Y.
McCord Radiator & Mfg. Co., Detroit, Mich.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Cylinder

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Quadriga Mfg. Co., The, Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Felt

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Auburn Leather Goods Co., Inc., Hartford, Conn.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Booth Felt Co., Inc., Brooklyn, N. Y.
Coleman, Allan J., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Gross, Rubber Co., Sharon, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.

Gaskets, Gauge Glass

(See "Washers and Gaskets, Gauge Glass")

Gaskets—Leather, Fibre and Paper

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Auburn Leather Goods Co., Inc., Hartford, Conn.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill. (Leather and rawhide)
Continental Diamond Fibre Co., Newark, Del.
Couse & Bolten, Inc., Newark, N. J. (Leather)
Elkhart Rubber Works, Elkhart, Ind.
Endura Mfg. Corp., Quakertown, Pa. (Fibre and paper only)
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Gross, Rubber Co., Sharon, Pa.
Himmelein & Bailey, Inc., Camden, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
McCord Radiator & Mfg. Co., Detroit, Mich.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Michigan Leather Packing Co., Detroit.
Minnesota Mining & Mfg. Co., St. Paul, Minn. (Paper only)
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn. (Leather only)
Philadelphia Belting Co., Philadelphia, Pa. (Leather)
Quadriga Mfg. Co., The, Chicago, Ill.
Rhopac Products Corp., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whiting Leather & Belting Co., Long Island City, N. Y.

Gaskets, Manhole and Handhole

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Asbestos Textile Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Capen Belting & Rubber Co., St. Louis, Mo.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Johns-Manville Sales Corp., New York.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

FIBRE SHEET
Vegetable
Stock sizes of sheets in standard thicknesses.
Gaskets cut, ring style or special shapes to blueprints.
Elkhart Rubber Works
Elkhart, Indiana

Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gaskets, Metallic

Akron Metallic Gasket Co., Akron, Ohio.
Asbestos Textile Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Couse & Bolten, Inc., Newark, N. J.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Hewitt Rubber Corp., Buffalo, N. Y.
Janos Asbestos Co., New York, N. Y.
Key Boiler Equipment Co., East St. Louis, Ill.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
McCord Radiator & Mfg. Co., Detroit, Mich.
Metallo Gasket Co., New Brunswick, N. J. (Also asbestos filled and asbestos cord inlaid)
Quadriga Mfg. Co., The, Chicago, Ill.
Rhopac Products Corp., Chicago, Ill.
Smooth-On Manufacturing Co., Jersey City, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Western Packing & Supply Co., Chicago.

Gaskets, Oil

Advance Packing & Supply Co., Chicago.
Akron Metallic Gasket Co., Akron, Ohio.
Asbestos Textile Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Flexitallic Gasket Co., Camden, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
McCord Radiator & Mfg. Co., Detroit, Mich.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Metallo Gasket Co., New Brunswick, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Gaskets, Rubber

Akron Metallic Gasket Co., Akron, Ohio.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock, Packing Co., The, Palmyra, N. Y.
General Electric Co., Schenectady, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F. Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross, Rubber Co., Sharon, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Huhn Manufacturing Co., New York, N. Y.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
Miller Rubber Co., The, Akron, Ohio.
Morse Grate Bar Co., Inc., Providence, R. I.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Younstown, O.
Rhopac Products Corp., Chicago, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Vellumoid Co., The, Worcester, Mass.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wodack Electric Tool Corp., Chicago, Ill.

Gaskets, Tubular

Belmont Packing & Rubber Co., Philadelphia, Pa.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Gasoline Storage Outfits

(See "Storage Outfits, Gasoline")

Gauges, Ammonia

Bristol Co., The, Waterbury, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Nason Manufacturing Co., New York, N. Y.
Parks, Harry S. Co., Philadelphia, Pa.

Brewers' Supplies

Vat Gaskets
Tank Door Gaskets
Bottler Machine Pieces
Crowner Pads
Valves

all of acid-resisting rubber which will not contaminate the brew with taste or odor.

Elkhart Rubber Works
Elkhart, Indiana

Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky.

Gauges, Back, for Band Saws

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.

Gauges, Bit and Drill

Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.

Gauges, Boiler Water Line

Bordo, L. J., Co., Inc., Glenside, Pa.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Keckley, O. C. Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Mercoid Corp., The, Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Gauges, Butt, Door Hanging and Mortising

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Gauges, Caliper

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Gauges, Center

Brown & Sharpe Mfg. Co., Providence, R. I.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Chamferer

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.

Gauges, Circumference

Lufkin Rule Co., The, Saginaw, Mich.

Gauges, Compound

Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Grinnell Co., Inc., Providence, R. I.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sarco Co., Inc., New York, N. Y.

Gauges, Cutting

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Sight Feed Generator Co., Richmond, Ind.
Torchweld Equipment Co., Chicago, Ill.

Gauges—Cylindrical, Plug and Ring

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I. (Cylindrical only)
General Electric Co., Schenectady, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.

UMI

Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Depth

Ames, B. C., Co., Waltham, Mass.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Parks, Harry S. Co., Philadelphia, Pa.
Starrett, L. S., Co., The, Athol, Mass.
Union Twist Drill Co., Athol, Mass.

Gauges, Dial

Ames, B. C., Co., Waltham, Mass.
Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Belfield, H., Co., Philadelphia, Pa.
Bristol Co., The, Waterbury, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Federal Products Corp., Providence, R. I.
Foxboro Co., The, Foxboro, Mass.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Differential Pressure

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock,Co. Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Leeds & Northrup Co , Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S. Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.

Gauges, Draft

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Meriam Co., The, Cleveland, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Republic Flow Meters Co., Chicago, Ill.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Gauges, Duplex Pressure

Bristol Co., The, Waterbury, Conn.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Parks, Harry S., Co., Philadelphia, Pa.

Gauges, Expansion Tank

American Injector Co., Detroit, Mich.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Milwaukee Valve Co., Milwaukee, Wis.
Parks, Harry S., Co., Philadelphia, Pa.
Roberts Brass Mfg. Co., The, Detroit, Mich.

Gauges, Feeler or Thickness

Ames, B. C., Co., Waltham, Mass.
Atlas-Ansonia Co., New Haven, Conn.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Millers Falls Co., Greenfield, Mass.
National Motor Bearing Co., Inc., Oakland, Calif.
Snap-On Tools, Inc., Kenosha, Wisconsin.
Starrett, L. S., Co., The, Athol, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Gauges, Height

Belfield, H., Co., Philadelphia, Pa.
Bristol Co., The, Waterbury, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Hydraulic

Belfield, H., Co., Philadelphia, Pa.
Bristol Co., The, Waterbury, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Lourie Manufacturing Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.

Gauges, Inside Caliper

Ames, B. C., Co., Waltham, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Williams, J. H., & Co., New York, N. Y.

Gauges, Limit

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Brown, R. H., & Co., New Haven, Conn.
Federal Products Corp., Providence, R. I.
Greenfield Tap & Die Corp., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Liquid Level

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McNeill Engineering Equipment Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Nason Manufacturing Co., New York, N.Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Wright-Austin Co., Detroit, Mich.

Gauges, Locomotive

Bordo, L. J., Co., Inc., Glenside, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sargent Co., Chicago, Ill.

Gauges, Loss of Head and Rate of Flow

Foxboro Co., The, Foxboro, Mass.
Parks, Harry S., Co., Philadelphia, Pa.

Gauges, Lumber

Gustafson & Scott Mfg. Co., Chicago, Ill.
Lufkin Rule Co., The, Saginaw, Mich.

Gauges, Marking and Mortising, Carpenters'

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.

Gauges, Mercury

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.

Gauges, Micrometer Caliper

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Oil, Sight Feed

American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Gits Bros., Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.

Gauges, Oil Level, for Dynamos

American Injector Co., Detroit, Mich.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Electric Co., Schenectady, N. Y.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.

Gauges, Ounce Graduation

Foxboro Co., The, Foxboro, Mass.
Marsh, Jas. P., & Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.

Gauges, Oxygen and Acetylene

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Harris Calorific Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Linde Air Products, Inc., The, New York.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Pittsburgh Thermoline Co., Pittsburgh.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco, Calif.

Gauges, Plane

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.

Gauges, Planer and Shaper

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Pressure

Air Reduction Sales Co., New York, N. Y.
Alemite Corporation, Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Brunner Manufacturing Co., Utica, N. Y.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Crane Co., Chicago, Ill.
Dudgeon, Richard, Inc., New York, N. Y. (Hydraulic)
Foxboro Co., The, Foxboro, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Sargent Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.

Gauges, Pressure, Electrical Alarm

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.

Gauges, Pressure, Recording

Bastian-Blessing Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Gauges, Pressure and Vacuum, Compound

Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Milwaukee Valve Co., Milwaukee, Wis.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Gauges—Rack, Pinion and Gear Tooth

Ames, B. C., Co., Waltham, Mass.
Federal Products Corp., Providence, R. I.
Pratt & Whitney Co., Hartford, Conn.

Gauges, Radius

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Rolling Mill

Brown & Sharpe Mfg. Co., Providence, R. I.

Gauges, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Jones Superior Machine Co., Chicago, Ill.
Simonds Saw and Steel Co., Fitchburg, Mass.

Gauges, Saw, Swing, Automatic

Covel-Hanchett Co., Big Rapids, Mich.

Gauges, Scratch

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Screw and Wire

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Rawplug Co., Inc., New York, N. Y.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Screw Pitch or Thread

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Snap

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Gauges, Stair

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Steam, Pyrometer

Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Taylor Instrument Companies, Rochester.
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.

Gauges, Surface

Ames, B. C., Co., Waltham, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Tank, Indicator

Bastian-Blessing Co., Chicago, Ill.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn. (For aircraft, etc.)
Viking Pump Co., Cedar Falls, Iowa.

Gauges, Tap

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Greenfield Tap & Die Corp., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Taper

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Greenfield Tap & Die Corp., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Telescoping

Brown & Sharpe Mfg. Co., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.

Gauges, Test

Ames, B. C., Co., Waltham, Mass.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Bastian-Blessing Co., Chicago, Ill.
Boekel, Wm., & Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Federal Products Corp., Providence, R. I.
Foxboro Co., The, Foxboro, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Parks, Harry S., Co., Philadelphia, Pa.
Pratt & Whitney, Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Gauges, Thickness

(See "Gauges, Feeder or Thickness")

Gauges, Track

Aldon Co., The, Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Tallman Manufacturing Co., Shelbyville, Ill.

Gauges, Traction Engine

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.

Gauges, Vacuum

Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
National Gauge Co., Brooklyn, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Roots - Connersville - Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Uehling Instrument Co., Paterson, N. J.

The

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will be found on Pages 5, 6 and 7

UMI

BOILER FITTINGS

Water Gauges, Gauge Cocks, Fusible Plugs. Designed to meet the specifications of the ASME, the Massachusetts Boiler Code, the Steamboat Inspection Service of the United States Department of Commerce. Fusible Plugs are made in accordance with the above specifications, and should be replaced in every boiler each year. Water Gauges and Gauge Cocks of highest quality of workmanship, material, and finish. Moderately priced with attractive discounts, they make a profitable and satisfactory line to handle.

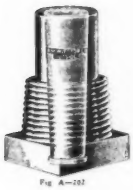

Fig. A—202

AMERICAN INJECTOR CO.
DETROIT, MICH.

Gauges, Water

(See also "Columns, Water")

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Brown Instrument Co., The, Philadelphia.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Brass Co., Detroit, Mich.
Corning Glass Works, Corning, N. Y.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Huyette, Paul B., Co., Inc., Philadelphia.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Marsh, Jas. P., & Co., Chicago, Ill.
Meriam Co., The, Cleveland, Ohio.
Nason Manufacturing Co., New York, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Sargent Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Wright-Austin Co., Detroit, Mich.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

When in Need of

BOILER TRIMMINGS
Think of Us

Manufacturers of a very Complete Line of Water Gauges, Compression Gauge Cocks, Plain Gauge Cocks, Boiler Drawoff Cocks, Pop Safety Valves, Etc.
Heavy, Light, Rough or Polished Types.
Write Us for Prices

CONSOLIDATED BRASS CO.
139 Summit St.
DETROIT, MICH.

Gauges, Water, Quick Closing

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Huyette, Paul B., Co., Inc., Philadelphia.
Keckley, O. C., Co., Chicago, Ill.
Klingerit, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Nason Manufacturing Co., New York, N. Y.
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Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Gauges, Water, Safety

Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J. Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Essex Brass Corp., Detroit, Mich.
Huyette, Paul B., Co., Inc., Philadelphia.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
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Parks, Harry S., Co., Philadelphia, Pa.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Williams, D. T., Valve Co., The, Cincinnati.
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Yarnall-Waring Co., Chestnut Hill, Philadelphia.

Gauges, Welding

(See "Gauges, Oxygen and Acetylene")

Gauges, Wire

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Federal Products Corp., Providence, R. I.
Leard, William, Co., Inc., The, New Brighton, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Union Twist Drill Co., Athol, Mass.

Gear Blanks

(See "Blanks, Gear")

Gear Cutting Attachments

(See "Cutting Attachments, Gear")

Gear Cutting Machines

(See "Machines, Cutting, Gear")

Gear Testing Machines

(See "Machines, Gear Testing")

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Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schultz, A. L., & Son, Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
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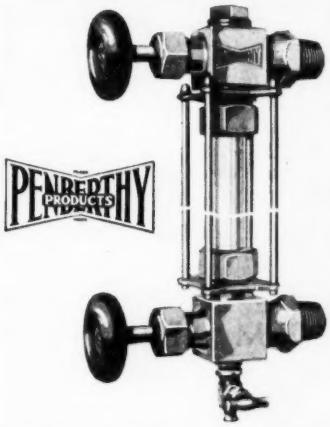

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Medart Co., St. Louis, Mo.
Moloney Belting Co., Chicago, Ill.
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Pyott Foundry & Machine Co., Chicago, Ill.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith, Winfield H., Inc., Springfield, N. Y.
Webster Mfg. Co., Chicago, Ill.
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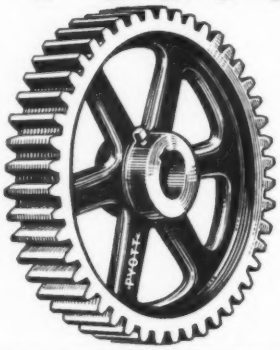

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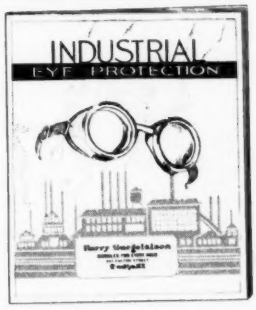

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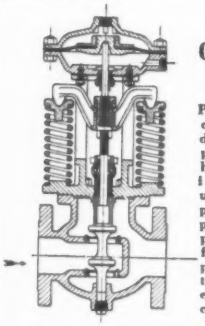

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Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.

Grease, Lubricating

(See "Oil and Grease, Lubricating")

Greases, Graphite

Baum's Castorine Co., Rome, N. Y.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.

"SUPERFLAKE"

GRAPHITE

"SUPERFLAKE" Flake Graphite

is prepared in two sizes for general use, viz.:

No. 1 "Superflake" Graphite (Large Flake), for use on heavy or loose bearings, cylinders of blowing engines, packings, gaskets, flanges, etc.

No. 2 "Superflake" Graphite (Small Flake), for use on close fitting bearings, such as engine cylinders, valves and valve motions, packings, gaskets, pipe, fittings, etc.

When ordering, buyer should specify whether No. 1 (Large Flake) or No. 2 (Small Flake) is wanted.

No. 590 "Superflake" Graphite is in a class by itself for use on spindles, bobbins, and other parts of textile machinery, firearms, locks, engine cylinders, talking machines, etc.

"SUPERFLAKE" Amorphous Graphite

It is the best quality of Amorphous Lubricating Graphite for use dry or mixed with oils and greases.

"Superflake" Graphites are packed as follows:

½-lb. cans, 36 to the case
1-lb. cans, 36 to the case
5-lb. cans, 12 to the case
10-lb. cans, 6 to the case
25-lb. containers
50-lb. containers
100-lb. containers
Half-barrels (about 200 lbs.)
Barrels (about 400 lbs.)

Graphite Paint

"Superflake" Graphite Paint protects all metal and other surfaces. It is prepared in the following colors: **Natural Graphite Color, Jet Black, Dark Red, Olive Green.**

Packed as follows:

½-gal. cans, 12 to the case
1-gal. cans, 6 to the case
5-gal. cans
Half-barrels
Barrels

"SUPERFLAKE" Graphite Cup Greases

Number 0 consistency is very soft, number 3 medium, and number 5 extra heavy. Number 3 is recommended for general use and number 5 where a heavier consistency is required.

Packed as follows:

1-lb. cans, 36 to the case
5-lb. cans, 12 to the case
10-lb. cans, 6 to the case
25-lb. containers
50-lb. containers
100-lb. containers
Half-barrels
Barrels

Other "SUPERFLAKE" Products

PIPE JOINT COMPOUND for Oil and Water Joints
COLLOIDAL GRAPHITE
PENETRATING OIL
RUST SOLVENT

Distributors will find "Superflake" Products an easy selling and profitable line. Ask for full information.

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33 South Clark Street
Chicago, Ill.

Ideal Commutator Dresser Co., Sycamore, Ill.
Keystone Lubricating Co., Philadelphia.
National Carbon Co., Inc., Carbon Sales Division, Cleveland, Ohio.
Standard Oil Co. of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.
Superior Flake Graphite Co., Chicago, Ill.

Grinders, Aerial

Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Flexible Shafts, Inc., Binghamton, N. Y.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wodack Electric Tool Corp., Chicago, Ill.

Grinders, Angle Plate or Parallel

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Gardner Machine Co., Beloit, Wis.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Bench and Floor, Belt Driven

Atkins, E. C., and Co., Indianapolis, Ind.
Blount, J. G., Co., Everett, Mass.

GRINDERS
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MACHINE SHOP
FACTORY or MILL

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BUFFING or
POLISHING
LATHES
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BENCH or
COLUMN
BELT DRIVEN

SEPARATE or SELF-CONTAINED
COUNTERSHAFTS
PLAIN or ANTI-FRICTION
BEARINGS

MR. DISTRIBUTOR!
Our large variety of sizes and styles makes it possible to select the proper item for each of your customers' needs

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Covel-Hanchett Co., Big Rapids, Mich.
Cutter Machine Co., St. Louis, Mo.
Fidelity Electric Co., Lancaster, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati,
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Millers Falls Co., Greenfield, Mass.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Norton Co., Worcester, Mass. (Floor type only)
Pratt & Whitney Co., Hartford, Conn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Walls Sales Corp., New York, N. Y.
Western Hdwe. Mfg. Co., Milwaukee, Wis.

Grinders, Casting, Heavy Duty

Black & Decker Mfg. Co., The, Towson, Md.
Champion Blower & Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Dillon Electric Co., The, Canton, Ohio.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Norton Co., Worcester, Mass.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Grinders, Center

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Luther Grinder & Tool Co., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Centerless

Detroit Machine Tool Co., Detroit, Mich.
Luther Grinder & Tool Co., Milwaukee.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Chaser

Geometric Tool Co., The, New Haven, Conn.
Hisey-Wolf Machine Co., The, Cincinnati.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Chisel

Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Mummert-Dixon Co., Hanover, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Grinders, Column

Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Fidelity Electric Co., Lancaster, Pa.
Hisey-Wolf Machine Co., The, Cincinnati.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Commutator

Ideal Commutator Dresser Co., Sycamore, Ill.
Jordan Bros., Inc., New York, N. Y.

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Bench and Floor Grinders
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Tire Buffers
Tool Post and Angle Plate Grinders
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V Belt Grinders and Buffers
Disc Grinders
Track Drills
Roll Grinders
Vertical Spindle Grinders
Bench Drills and Radial Arms
Lathe and Center Grinders
Wet Grinders
Snagging Grinders

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Cincinnati, Ohio

Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Grinders, Crankshaft

Norton Co., Worcester, Mass.

Grinders, Cutter and Reamer

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence.
Dumore Co., The, Racine, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Norton Co., Worcester, Mass.
Oesterlein Machine Co., The, Cincinnati, O.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Union Twist Drill Co., Athol, Mass.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Cylinder

Covel-Hanchett Co., Big Rapids, Mich.
Hisey-Wolf Machine Co., The, Cincinnati.
Keystone Mfg. Co., Buffalo, N. Y.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Sunnen Products Co., St. Louis, Mo.

Grinders, Cylindrical

Brown & Sharpe Mfg. Co., Providence.
Dumore Co., The, Racine, Wis.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Layth-Grindar Corporation, Orange, N. J.
Norton Co., Worcester, Mass.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Turn to the
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for trade names
which are not the same
as the company's name

UMI

SKILSAW HAND GRINDER

MOLDED BAKELITE BODY
HIGHEST SPEED MOTOR
FULL BALL BEARING CONSTRUCTION
WT. ONLY 2¼ LBS.

New Features . . .
New Performance . . .
and an Immense Market!

● Efficient Air Filter protects motor, etc., from grinding dust. Instantly detachable, for cleaning.

Here are a few of the points of construction on which we base our challenge that the Skilsaw Hand Grinder out-performs the field . . . is a bigger value for the money.

Molded Bakelite Body—non-conductor of heat and electricity. Light, compact and immensely strong.

Perfectly balanced motor has higher speed, for faster grinding. Universal type.

Full Ball Bearing Construction. Bearings are grease sealed against dirt, dust or metal chips—meaning longer life.

Special fan air-cools the tool efficiently at all times.

Wonderfully handy to use. Convenient one hand ribbed grip.

Complete outfit, including wrench, 3 wheels, packed in compact box.

USED FOR REAL PRECISION GRINDING ON METALS, ALLOYS, RUBBER, STONE, MARBLE, PORCELAIN, COMPOSITIONS.

Investigate This Little Winner—Send for Full Details!

SKILSAW, INC., 3344 ELSTON AVE., CHICAGO

HAND-EE HI-POWER GRINDERS

Portable

$35.00

Grinds, Polishes, Buffs, Drills and Routs without expensive auxiliary equipment —no hoses or shafts to fight.

Motor weighs 3 pounds—turns up 17000 RPM with power sufficient to pull a 2½" wheel. Operates from any light socket 110 volt AC or DC 25 to 60 cycles. Fully guaranteed—precision built, most advanced design with ball bearing construction and cushioned insulation.

10 DAY TRIAL TEST

Hand-ee GRINDER

Small Handee grinder weighs 1 pound. $10 and up.
Write for complete catalog or order either for trial.

CHICAGO WHEEL & MFG. COMPANY
Grinding Specialists Since 1895
112 South Aberdeen Street **Chicago, Illinois**

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Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electrical Tool Co., The, Towson, Md.

Grinders, Disc

Besly, Charles H., & Co., Chicago, Ill.
Clark, James, Jr., Electric Co., Louisville, Ky.
Hisey-Wolf Machine Co., The, Cincinnati.
Ideal Commutator Dresser Co., Sycamore, Ill.
Jones Superior Machine Co., Chicago, Ill.
Porter-Cable-Hutchinson Corp., The, Syracuse, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electrical Tool Co., The, Towson, Md.
Wallace, J. D., & Co., Chicago, Ill.
Walls Sales Corp., New York, N. Y.
Winterhoff Tool & Machine Co., Elkhart, Ind.

Grinders, Drill

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Union Twist Drill Co., Athol, Mass.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Wappat, Inc., Pittsburgh, Pa.

Grinders, Electric, Bench and Floor

Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp., Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Co., Everett, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cutter Machine Co., St. Louis, Mo. (Floor only)
Dillon Electric Co., The, Canton, Ohio.
Fidelity Electric Co., Lancaster, Pa.

POWER UNPARALLELED
50,000 R.P.M.—¼ H.P.
Wt. 1 lb. 15 oz.

A finer Hand Grinder has never been built. Instant popularity. Send for complete information.

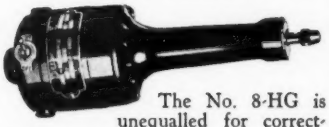
NEW

Dealers Wanted

ONSRUD MACHINE WORKS, INC.
3903 Palmer St. Chicago, Ill.

DUMORE
HIGH SPEED PRECISION
GRINDERS
HIGH SPEED PRECISION GRINDER

No. 8-HG GRINDER



The No. 8-HG is unequalled for correcting inaccuracies in blanking dies, sharpening button dies, acorn dies, touching up taps and cutters, lapping small holes, and testing steel by the spark method. These are only a few of the possible uses for this versatile little tool.
Price $17.50

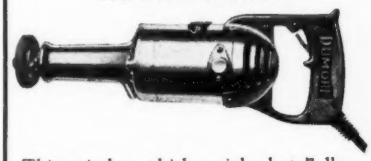
MIDGET GRINDER

Men who know fine tools say the Dumore Midget is one of the neatest items on the market. It can be used as a tool post grinder for grinding lathe centers, small openings, tapers, etc. Or, it is practical for off-hand grinding of holes, radii, irregular shapes in all kinds and types of dies. Price.....$24.00

No. 1-HG GRINDER

Equipped with a swivel tool post shank, and designed originally for precision lathe work, this grinder has also been found very useful as a hand grinder. Motor—1/8 H. P. Speed, 15,000 RPM. Reach of arm—4½". Reach of extension spindle—2½". Price...$45.00

No. 9-HG GRINDER



This grinder, which weighs but 7 lbs., is excellent for production grinding of body dies, forming dies, moulds, and other off-hand grinding operations. It has a powerful 1/5 H. P. motor and an efficient filtering system which keeps the grinder cool and prevents dirt and grinding dust from entering the motor. Available with either end handle or side handle. Price.....$40.00

Dumore Company
101 Sixteenth St.
Racine, Wis.

Forbes & Myers, Worcester, Massachusetts
Gilbert, J. E., Grinder Co., Milwaukee.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Louisville Electric Manufacturing Co., Louisville, Ky.
Luther, Inc., Milwaukee, Wis.
Marathon Electric Mfg. Co., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Norton Pike Co., Pike, N. H. (Bench only)
Onsrud Machine Works, Inc., Chicago, Ill.
Porter-Cable-Hutchinson Corp., The, Syracuse, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers Inc., Hoist & Crane Division, Springfield, Ohio.
Rockford Machine Tool Co., Rockford, Ill.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Syntron Co., Pittsburgh, Pa.
U. S. Electrical Mfg. Co., Los Angeles, Cal.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.

Grinders, Electric, Portable

Behr-Manning Corp., Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Co., Everett, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Dumore Co., The, Racine, Wis.

ELECTRIC GRINDERS *All Ball Bearing*

You can fill practically every grinding need with U. S. Electric Grinders. Our very complete line includes portable, bench, pedestal, tool post, flexible shaft, internal, surface, adjustable speed, high speed and snagging grinders, etc.

U. S. Grinders are thoroughly modern in design, made of the very best materials, according to the strictest standards of manufacture. They are efficient, rugged, low cost in operation.

Immediate attention will be given distributors' orders—and we invite an early investigation of the sales and profit opportunities this long established line offers you.

Model 10
(Illustration shows 5 H.P., 14" x 3")

Capable of heavy duty service, and rated for continuous service at full load with a temperature rise of 40 deg. Equipped with remote control. Furnished for 110, 220, 440 or 550 volts, alternating or direct current.

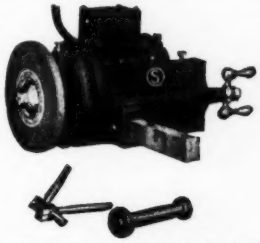
The UNITED STATES ELECTRICAL TOOL CO.
2479 West Sixth St. Dept. H Cincinnati, Ohio
IN CANADA—Maple Leaf Electric Tools, Ltd., Toronto
GOOD ELECTRIC TOOLS SINCE 1897

THE STANDARD ELECTRICAL TOOL CO.
CINCINNATI, OHIO
Electric Drills, Grinders, Buffing and Polishing Machines
General Electric Motors SKF Ball Bearings

¼" Light Duty Electric Drill

For intermittent service. 110 volt Universal Motor. Surplus power within its capacity. Self-tightening, key-opened chuck. Convenient switch. No load speed 1600 RPM. Dimensions 11½x4". Weight 6 lbs.

Price, $23.00. Other voltages, add 10%. Also other sizes, ¼" to 1½", Heavy Duty, continuous. **DRILL STANDS** for all sizes.



Tool Post or Center Grinders.

	A.C.	D.C.
¼ H.P. Without Feed	$68.00	$72.00
¼ H.P. With Feed	78.00	84.00
½ H.P. Without Feed	98.00	104.00
½ H.P. With Feed	110.00	120.00

Also ANGLE PLATE GRINDERS, for Planer, Boring Mill, Lathe, Shaper, etc. ¼ H.P. to 10 H.P. sizes.

Wet Tool Grinder

1/6 H.P. 110 volt, 60 cycle, single phase G.E. motor. 12x1¾x¾" Sandstone Wheel, 87 R.P.M. Weight 95 lbs.
Particularly for School Shops. Also for Pattern, Woodworking Shops, etc. Packing Houses, Meat Markets, Restaurants, Hospitals, etc., for sharpening cutlery.
Price (with Tool Holder), **$90.00;** (without Tool Holder), **$70.00;** other currents, price on application.

BLOWERS: Portable; Exhaust.

BUFFERS AND POLISHERS: Portable, Bench, Pedestal, Adjustable Speed. Strip Steel and Wire, continuous.

CUTTERS: Tile, Marble, Slate, etc.

DRILLS: Radial, Portable.

GRINDERS: Portable, High Frequency, Bench, Pedestal, Tungsten-Carbide, Internal, Ring Wheel, Disc, Adjustable Speed.

GROOVERS: Tongue and Groove, portable, for flooring.

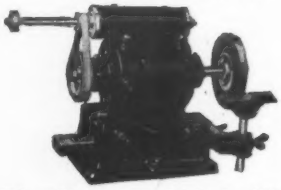
ROUTERS, type, for newspaper work.

SPECIAL MACHINES.

Dealers write for Catalog, Price List and Discounts.

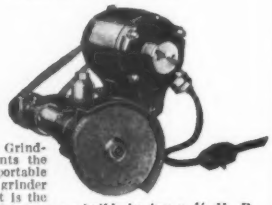
DUMORE
HIGH SPEED GRINDERS

No. 2-AG GRINDER



This model of Dumore Grinder is widely used in tool rooms for light external and internal work. Motor spindle speed 10,000 RPM. Internal attachment spindle—25,000 RPM. Fitted with selected ball bearings. Equipment—7 grinding wheels from ⅜" to 4" diameter, fabric belt, wheel guard, bench base, cutter grinding rest, cross feed lever, cord, and steel case.
Price $75.00

No. 5 GRINDER



The No. 5 Grinder represents the latest in portable precision grinder design. It is the most popular type we build, having a ½ H. P. universal motor, capable of handling production as well as general toolroom precision grinding. Easy to mount on lathe, or other machine tool; interchangeable quills—10 types available.
No. 5-B Grinder (with external grinding quill "B" only).....$155.00
No. 5-C2 Grinder (with internal grinding quill "C2" only) 155.00
No. 5-A Grinder (with quills B and C2). 200.00

No. 7 GRINDER

The No. 7 Grinder embodies all the features that make the No. 5 Dumore so popular. It is larger and more powerful — designed to handle production internal and external precision grinding. This grinder has a ¾ H. P. motor — will operate on A. C. or D. C.
No. 7-X Grinder (with external grinding quill "X" only) $190.00
No. 7-N Grinder (with internal grinding quill "N" only) 190.00
No. 7-A Grinder (with quills X and N). 240.00

No. 4 GRINDER

The No. 4 Dumore Grinder is designed for use on bench lathes. Because of its compactness, an extremely wide range of precision grinding work is possible. Motor—1/5 H. P. Universal. Distance from center of mounting post to center of grinding spindle—1⅛".
No. 4-X Grinder (with external grinding quill "4X" only) .....$ 95.00
No. 4-N Grinder (with internal grinding quill "4N" only) 100.00
No. 4-A Grinder (with quills 4X and 4N) 125.00

DUMORE COMPANY
101 Sixteenth St., » Racine, Wis.

Gilbert, J. E., Grinder Co., Milwaukee, Wis.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Ideal Commutator Dresser Co., Sycamore, Ill.
Independent Pneumatic Tool Co., Chicago.
Layth-Grindar Corp., Orange, N. J.
Louisville Electric Manufacturing Co., Louisville, Ky.
M. C. Tool Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Marathon Electric Mfg. Co., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Norton Pike Co., Pike, N. H.
Porter-Cable-Hutchinson Corp., The, Syracuse, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Sunnen Products Co., St. Louis, Mo.
Syntron Co., Pittsburgh, Pa.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.
Wodack Electric Tool Corp., Chicago, Ill.

Grinders, Emery
(See "Grinders, Tool")

Grinders, Flexible Shaft
Binghamton Flexible Shaft Co., Johnson City, N. Y.
Dumore Co., The, Racine, Wis.
Fidelity Electric Co., Lancaster, Pa.
Flexible Shafts, Inc., Binghamton, N. Y.
Gem Manufacturing Co., Pittsburgh, Pa.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., Cincinnati, Ohio.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.

Grinders, Gear
Brown & Sharpe Mfg. Co., Providence, R. I.
Covel-Hanchett Co., Big Rapids, Mich.
Ingersoll-Rand Co., New York, N. Y.
Pratt & Whitney Co., Hartford, Conn.

Grinders, Guide Bar
Norton Co., Worcester, Mass.
Onsrud Machine Works, Inc., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.

Grinders, Hole and Face
Dumore Co., The, Racine, Wis.
Hisey-Wolf Machine Co., The, Cincinnati.
Layth-Grindar Corp., Orange, N. J.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.

Grinders, Internal
Covel-Hanchett Co., Big Rapids, Mich.
Dumore Co., The, Racine, Wis.
Gilbert, J. E., Grinder Co., Milwaukee, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Klotz Machine Co., The, Sandusky, Ohio.
Layth-Grindar Corp, Orange, N. J.
Mall Tool Co., Chicago, Ill.
Micro Corp., The, Bettendorf, Iowa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Onsrud Machine Works, Inc., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Sundstrand Machine Tool Co., Rockford, Ill.
Sunnen Products Co., St. Louis, Mo.
United States Electrical Tool Co., The, Cincinnati, Ohio.

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Has wider range of accurate grinding (external, internal and surface) than any other portable grinder built. Suitable for use on 10" and larger lathes and will grind within 2" of maximum lathe swing.

"The Precision Grinder" has a Universal Ball Bearing Motor, which operates on direct or alternating current (60 cycles or less). Speeds of 30,000, 16,500, 9,500 and 5,500 R. P. M. are obtainable by changing pulleys and belts. Comes in ¼ or ½ H. P. Many other outstanding features.

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FLEXIBLE SHAFT UTILITY TOOL

This tool is prized by engravers, mechanics, tool makers, die makers, and machinists in all industries where a small flexible shaft unit finds profitable use. It is designed so the flexible shaft can be quickly attached to armature or gear shaft to secure high or low speeds as desired. Handpiece has two ball bearings and No. 0 Jacobs chuck. Equipment includes five die sinkers burs and three mounted grinding wheels. Price.....$45.00

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Behr-Manning Corp., Troy, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Foley Manufacturing Co., Minneapolis, Minn.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Mountville Mfg. Co., Mountville, Pa.
Mummert-Dixon Co., Hanover, Pa.
Norton Co., Worcester, Mass.
Norton Pike Co., Pike, N. H.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Sprout, Waldron & Co., Inc., Muncy, Pa.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Oilstone

Mummert-Dixon Co., Hanover, Pa.
Wallace, J. D., & Co., Chicago, Ill.

Grinders, Parallel

(See "Grinders, Angle Plate or Parallel")

Grinders, Patternmakers'

Besly, Charles H., & Co., Chicago, Ill.
Blount, J. G., Co., Everett, Mass.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hisey-Wolf Machine Co., The, Cincinnati.
Mall Tool Co., Chicago, Ill.
Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
Wallace, J. D., & Co., Chicago, Ill.

Grinders, Piston

Covel-Hanchett Co., Big Rapids, Mich.
Norton Co., Worcester, Mass.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Piston Ring

Besly, Charles H., & Co., Chicago, Ill.

Grinders, Pneumatic

Buckeye Portable Tool Co., The, Dayton, O.
Chicago Pneumatic Tool Co., New York.
Dallett Co., The, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Onsrud Machine Works, Inc., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Sheldon Machine Co., Chicago, Ill.

Grinders, Radial

Mummert-Dixon Co., Hanover, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Norman Machine Tool Co., Springfield, Mass.

Grinders, Saw

(See "Sharpeners and Grinders, Saw")

Grinders, Surface

Armstrong-Blum Mfg. Co., Chicago, Ill.
Besly, Charles H., & Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel Mfg. Co., Benton Harbor, Mich.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Norton Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Conn.
Safety Grinding Wheel & Machine Co., The, Sprinfield, Ohio.
Schauer Machine Co., The, Cincinnati, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walls Sales Corp., New York, N. Y.

Grinders, Swing Frame

Black & Decker Mfg. Co., The, Towson, Md.
Hammett, H. G., Troy, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mummert-Dixon Co., Hanover, Pa.
Norton Co., Worcester, Mass.
Pittsburgh Engineering Works, Pittsburgh, Pa.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sterling Grinding Wheel Co., The, Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Grinders, Tool

Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp., Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Co., Everett, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dallett Co., The, Philadelphia, Pa.
Dillon Electric Co., The, Canton, Ohio.
Dumore Co., The, Racine, Wis.
Foley Manufacturing Co., Minneapolis.
Forbes & Myers, Worcester, Mass.
Gisholt Machine Co., Madison, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Layth-Grindar Corp., Orange, N. J.
Luther Grinder & Tool Co., Milwaukee, Wis.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Norton Co., Worcester, Mass.
Norton Pike Co., Pike, N. H.
Pratt & Whitney Co., Hartford, Conn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Schauer Machine Co., The, Cincinnati, O.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.
U. S. Electrical Mfg. Co., Los Angeles.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Grinders, Tool Post

Buckeye Portable Tool Co., The, Dayton, O.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Dumore Co., The, Racine, Wis.
Gilbert, J. E., Grinder Co., Milwaukee, Wis.
Haskins, R. G., Co., Chicago, Ill.
Hisey-Wolf Machine Co., The, Cincinnati.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Layth-Grindar Corp., Orange, N. J.
Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee.
Onsrud Machine Co., The, Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cinnati, Ohio.

Grinders, Twist Drill

Behr-Manning Corp., Troy, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Hisey-Wolf Machine Co., The, Cincinnati.
Luther Grinder & Tool Co., Milwaukee.
Norton Pike Co., Pike, N. H.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Union Twist Drill Co., Athol, Mass.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Wappat Inc., Pittsburgh, Pa.

Grinders, Universal

Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Pneumatic Tool Co., New York.
Clark, James, Jr., Electric Co., Louisville, Ky.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Schauer Machine Co., The, Cincinnati, O.

Grinders, Valve

American Swiss File & Tool Co., Elizabeth, N. J.
Black & Decker Mfg. Co., The, Towson, Md.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Brunner Manufacturing Co., Utica, N. Y.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky.
Covel-Hanchett Co., Big Rapids, Mich.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stevens, Walden, Inc., Worcester, Mass. (Hand, gas engine)
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.
Victor Instrument Mfg. Co., Inc., New York, N. Y.

Grinding Attachments

Boice, W. B. & J. E., Toledo, Ohio.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Eye Shield Co., Chicago, Ill.
Dumore Co., The, Racine, Wis.
Gisholt Machine Co., Madison, Wis.
Hisey-Wolf Machine Co., The, Cincinnati, Ohio.
Layth-Grindar Corp., Orange, N. J.
Mountville Mfg. Co., Mountville, Pa.
Norton Co., Worcester, Mass.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Wappat, Inc., Pittsburgh, Pa.

Grinding Compounds

(See "Compounds, Grinding," and "Compounds, Valve Grinding")

Grinding Wheels

(See "Wheels, Grinding")

Grindstones

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Athol Machine & Foundry Co., Athol, Mass.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Western Products, Inc., Newcastle, Ind.

Grips, Cable

Clark Manufacturing Co., The, Philadelphia, Pa.
Klein, M., & Son, Chicago, Ill.

Grips, File, Rubber

Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Osgood, J. L., Machinery & Tool Co., Inc., Buffalo, N. Y.

Grips, Linemen's

Klein, M., & Sons, Chicago, Ill.
Republic Rubber Co., The, Youngstown, O.

Grooving Machines

(See "Machines, Grooving")

Manufacturers' Street Addresses will be found in the "Names and Addresses" Section

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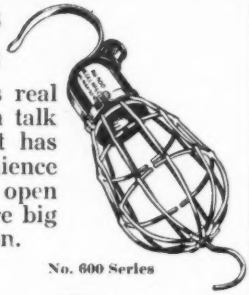
Here's a guard that is really different. It's real practical—it's new—it has features you can talk about — that will help you get orders. It has greater utility, safety, convenience and time saving value. The new open flat hook and socket housing are big steps ahead in guard construction.



No. 600 Series

Tell Your Customers About the Hook Feature

The flat, wide open hook feature makes this new guard at least twice as convenient as any other portable guard ever made. Hook it anywhere —on bench top, over a pipe, between joints, and this hook tends to hold it steady. There are scores of places where this larger flat hook will support the guard, where the old style wire hook would not fit.

No. 600M Series

New Strain Relief — Another Feature

Stronger and easier to wire, this screw clamp fastener securely grips the cord at the base of the handle, relieving all strain from the socket connections.

Twelve different Hook Handle Models to take lamps from 25 to 100 Watts

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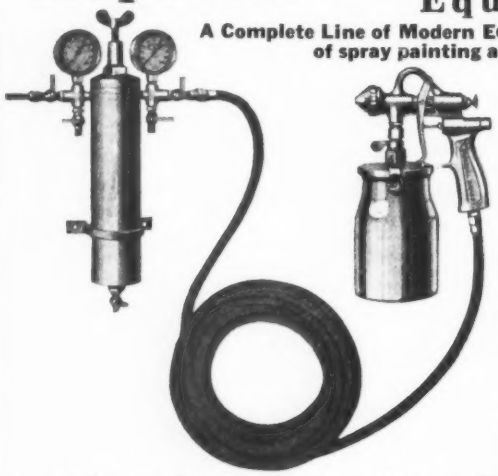
Imperial Spray Painting Equipment

A Complete Line of Modern Equipment for all classes of spray painting and finishing



Imperial paint spray guns and portable and stationary outfits are made in types and sizes to suit all requirements of the trades and industries.

The Imperial gun is a marvel of simplicity and perfect operation. The new type of spray head insures an even, regular pattern, the shape of which may be changed instantly to suit the needs of the operator.

The Imperial Separator removes oil and moisture from air lines and delivers clean, dry air. Imperial Pressure Feed Containers, in 5, 10, 15 and 20-gallon sizes, allow the work to continue without interruption for refilling. Imperial Compressors are made in sizes from 1/4 to 7 H. P.

Imperial No. 73-C Spray Painting Outfit, for industrial plants, automobile paint shops, garages, dealers, etc., that have a source of air supply. Outfit consists of Hi-Duty spray gun with 1 qt. container, 25 ft. 5/16" heavy duty air hose, and water and oil separator. Outfit complete, $60.85 List.

Ask for Catalog No. 112-A showing the full line of Imperial spray painting equipment and supplies.

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Guards, Electric Lamp

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Washburn Co., The, Worcester, Mass.

Guards, Glass, Gauge

Bache, Semon, & Co., New York, N. Y.
Capitol Brass Division Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Corning Glass Works, Corning, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Libbey Glass Mfg. Co., Toledo, Ohio.
Macbeth-Evans Glass Co., Charleroi, Pa.
Nason Manufacturing Co., New York, N. Y.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Sargent Co., Chicago, Ill.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Guards and Safety Appliances, Machinery

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Burt Manufacturing Co., Akron, Ohio.
Chicago Eye Shield Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Diamond Iron Works, Inc., Minneapolis.
Geuder, Paeschke & Frey Co., Milwaukee.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Page Steel & Wire Co., Pittsburgh, Pa.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Safety Wrench & Appliance Co., Worcester, Mass.
Tally-Meter Co., Norwich, Conn.

Guides, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.

Gummers, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Champion Blower and Forge Co., Lancaster, Pa.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Luther Grinder & Tool Co., Milwaukee.
Perkins & Co., Grand Rapids, Mich.
Rogers, Samuel C., & Co., Buffalo, N. Y.

Guns, Air

(See "Air Guns")

Guns, Grease and Oil

Alemite Corp., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
DeVilbiss Co., The, Toledo, Ohio.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Essex Brass Corp., Detroit, Mich.
H. D. B. Corporation, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Paasche Airbrush Co., Chicago, Ill.
Perkins Marine Lamp Corp., Brooklyn.
Rose, Frank, Mfg. Co., Hastings, Neb.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Turner Brass Works, The, Sycamore, Ill. (Oil only)
United States Air Compressor Co., Cleveland, Ohio.

Guns, Paint Spraying

Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
DeVilbiss Co., The, Toledo, Ohio.
Economy Machine Products Co., Chicago.
Electric Sprayit Co., The, South Bend, Ind.
H. D. B. Corporation, Chicago, Ill.

Imperial Brass Manufacturing Co., Chicago. Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Macleod Co., The, Cincinnati, Ohio.
Metal Specialties Mfg. Co., Chicago, Ill.
Milburn, Alexander, Co., The, Baltimore, Md.
Paasche Airbrush Co., Chicago, Ill.
Quigley Co., Inc., New York, N. Y.
Quincy Compressor Co., Quincy, Ill.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago, Ill.
Spraco, Inc., Somerville, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Vortex Manufacturing Co., The, Cleveland, Ohio.

Hammers, Blacksmiths' and Horseshoers'

Blacker Engineering Corp., New York, N.Y.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Kelly Axe & Tool Co., Charleston, W. Va.
Klein-Logan Co., The, Pittsburgh, Pa.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette, R., Inc., Philadelphia, Pennsylvania.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Illinois.

Hammers, Brass and Bronze

Billings & Spencer Co., The, Hartford, Conn.
Great Lakes Chemical Works, Detroit, Mich.
Harris, Arthur, & Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Plomb Tool Co., Los Angeles, Calif.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Hammers—Bricklayers', Patternmakers', Prospecting, Tile Setters'

Drew, C., & Co., Kingston, Mass.
Evansville Tool Works, Inc., Evansville, Ind.
Kelly Axe & Tool Co., Charleston, W. Va.
Kilborn and Bishop Co., The, New Haven, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn. (Bricklayers' only)
Plomb Tool Co., Los Angeles, Calif.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vlchek Tool Co., The, Cleveland, Ohio. ((Bricklayers' only)

The Electric Hammer You Can *SELL*
WODACK "DO-ALL"
COMBINATION
Electric Hammer and Rotary Drill

MODEL MDH

Drills concrete, metal and wood. Also used for light grinding and buffing. Changed in 30 seconds from hammer to rotary drill. Powerful, durable, low maintenance cost. Two models. Every installation and maintenance man is looking for just this kind of tool. Sells to contractors, industries, public utilities, institutions, etc. Easy and inexpensive to maintain. *Write for distributor's terms.*

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4621 W. Huron St. Chicago, Ill.
Mfrs. of
Hammers, Drills, Grinders, Buffers, Groovers

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Heller Brothers Co., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Mueller Co., Decatur, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

Hammers, Carpenters'

Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Kelly Axe & Tool Co., Charleston, W. Va.
Maydole, David, Tool Corp., Norwich, N. Y.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago.
Vlchek Tool Co., The, Cleveland, Ohio.

Hammers, Chipping, Hand

Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Maydole, David, Tool Corp., Norwich, N. Y.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago.
Vulcan Tool Mfg. Co., Quincy, Mass.
Wodack Electric Tool Corp., Chicago, Ill.

Hammers, Copper

Billings & Spencer Co., The, Hartford, Conn.
Bunting Brass & Bronze Co., The, Chicago, Ill. (Copper bronze)
Great Lakes Chemical Works, Detroit, Mich.
Greene, Tweed & Co., New York, N. Y.
Harris, Arthur, & Co., Chicago, Illinois.
Hays Manufacturing Co., Erie, Pa. (Also bronze)
Husky Corp., Kenosha, Wis.
Moak Machine & Tool Co., Port Huron, Mich.
Mueller Co., Decatur, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Richardson, Edro, Brass Co., The, Baltimore, Md.
U. S. Indestructible Gasket Co., Brooklyn.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Hammers, Drop, Board

American Hoist & Derrick Co., St. Paul, Minn.
Billings & Spencer Co., The, Hartford, Conn.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Industrial Brownhoist Corp., Cleveland, O.

Hammers, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Blacker Engineering Corp., New York.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Pneumatic Tool Co., New York.
Industrial Brownhoist Corp., Cleveland, O.
Milwaukee Electric Tool Corp., Milwaukee.
Speedway Manufacturing Co., Cicero, Ill.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Syntron Co., Pittsburgh, Pa.
U. S. Electrical Tool Co., The, Cincinnati.
Van Dorn Electric Tool Co., The, Towson, Md.
Wodack Electric Tool Corp., Chicago, Ill.

Hammers, Engineers'

Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Hammers, Lacing and Furrow

Onesti Bros., Highland Park, Ill.

Hammers, Lead Face

Billings & Spencer Co., The, Hartford, Conn.
Great Lakes Chemical Works, Detroit.
Husky Corp., Kenosha, Wis.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
U. S. Indestructible Gasket Co., Brooklyn.
Williams, E. A., & Son, Inc., Jersey City, N. J.

Hammers, Machinists'

Billings & Spencer Co., The, Hartford, Conn.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Estwing Mfg. Co., Rockford, Ill.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Kelly Axe & Tool Co., Charleston, W. Va.
Maydole, David, Tool Corp., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Southington Mfg. Co., Inc., The, Southington, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
U. S. Hame Co., Buffalo, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago.

Hammers, Mallets and Mauls—Rawhide and Leather

Chicago Rawhide Mfg. Co., The, Chicago.
Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Greene, Tweed & Co., New York, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Holbrook Raw Hide Co., Providence, R. I.
Husky Corp., Kenosha, Wis.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schieren, Chas. A., Co., New York, N. Y.

Hammers, Pneumatic—Chipping, Scaling, Riveting and Calking

Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.

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Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.

Hammers, Power

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Idustrial Brownhoist Corp., Cleveland, O.
Millers Falls Co., Greenfield, Mass.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Quickwork Co., The, St. Marys, Ohio.

Hammers, Riveting

Bernz, Otto, Co., Inc., Rochester, N. Y.
Chicago Pneumatic Tool Co., New York.
Cleveland Pneumatic Tool Co., The, Cleveland, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Kelly Axe & Tool Co., Charleston, W. Va.
Maydole, David, Tool Corp., Norwich, N. Y.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
U. S. Hame Co., Buffalo, N. Y.
Vaughan & Bushnell Mfg. Co,, Chicago.
Vulcan Tool Mfg. Co., Quincy, Mass.
Whitney Metal Tool Co., Rockford, Ill.

Hammers, Saw Setting

Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Kelly Axe & Tool Co., Charleston, W. Va.
Simonds Saw and Steel Co., Fitchburg, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Hammers, Striking

(See "Sledges, Mauls or Striking Hammers")

Hammers, Tinners'

Evansville Tool Works, Inc., Evansville, Ind.
Heller Brothers Co., Newark, N. J.
Kelly Axe & Tool Co., Charleston, W. Va.
Maydole, David, Tool Corp., Norwich, N. Y.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Prentiss Vise Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Hand Screws

(See "Screws, Hand")

Handholes, Boiler and Tank

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

Handles—Adze, Axe and Hammer

American Handle Co., Jonesboro, Ark.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Link, O. P., Handle Co., Salem, Ind.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.

Handles, Balance Crank

Piqua Handle and Mfg. Co., The, Piqua, O.
Warren Handle Works Co., Cortland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Handles, Brush and Broom

Osborn Manufacturing Co., Cleveland, O.
Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Warren Handle Works Co., Cortland, Ohio.

Handles—File, Chisel, Etc.

Disston, Henry, & Sons, Inc., Philadelphia.
Goodell-Pratt Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hy-Tools, Inc., Buffalo, N. Y.
Kaalot Mfg. Co., The, Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Nicholson File Co., Providence, R. I.
Osgood, J. L., Mach. & Tool Co., Buffalo.
Parker-Kalon Corp., New York, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Strock, L. W., & Co., Bethlehem, Pa.
Tuck Mfg. Co., Brockton, Mass.
Warren Handle Works Co., Cortland, Ohio,
Washburn Co., The, Worcester, Mass.
Wave Cut File & Tool Corp., New York.

Handles, Machine

American Handle Co., Jonesboro, Ark.
Bonney Forge & Tool Works, Allentown.
Link, O. P., Handle Co., Salem, Ind.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Handles, Pick

American Handle Co., Jonesboro, Ark.
Link, O. P., Handle Co., Salem, Ind.
Strock, L. W., & Co., Bethlehem, Pa.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, O.

Handles, Portable Electric Lamp

Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.

Handles, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Philadelphia.
Ohlen-Bishop Co., The, Columbus, Ohio.
Peterson, F. W., Co., New York, N. Y.
Simonds Saw & Steel Co., Fitchburg, Mass.

Handles, Scoop and Shovel

Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
Hubbard & Co., Pittsburgh, Pa.
Leach Co., Oshkosh, Wis.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Strock, L. W., & Co., Bethlehem, Pa.
Southington Mfg. Co., Inc., The, Southington, Conn.
Warren Handle Works Co., Cortland, Ohio.

Handles, Sledge

American Handle Co., Jonesboro, Ark.
Heller Brothers Co., Newark, N. J.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Link, O. P., Handle Co., Salem, Ind.
Turner, Day and Woolworth Handle Co., Louisville, Ky.
Warren Handle Works Co., Cortland, Ohio.

Handles, Soldering Iron

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Osgood, J. L., Machinery & Tool Co., Inc., Buffalo, N. Y.
Parker-Kalon Corp., New York, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Peterson, F. W., Co., New York, N. Y.
Piqua Munising Wood Products Co., The, Cleveland, Ohio.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Strock, L. W. & Co., Bethlehem, Pa.
Unique Manufacturing Co., Inc., Chicago.
Warren Handle Works Co., Cortland, Ohio.

Handles, Valve

(See "Wheels, Valve")

Hangers, Beam and Joist

Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
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Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hangers, Belt Shifter

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Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
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Wood's, T. B., Sons Co., Chambersburg, Pa.

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Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
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Dodge Manufacturing Corp., Mishawaka, Ind.
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Filer & Stowell Co., The, Milwaukee, Wis.
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Walker-Turner Co., Inc., Plainfield, N. J.
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Hangers and Tracks, Door

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Richards-Wilcox Mfg. Co., Aurora, Ill.
Stanley Works, The, New Britain, Conn.
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Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
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Grabler Mfg. Co., Cleveland, Ohio.
Newbury Manufacturing Co., Monroe, N. Y.
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Hangers, Pipe, Chain

(See "Chain, Pipe Hanging")

Hangers, Pipe, Expansion

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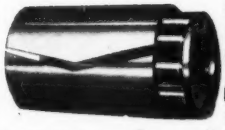

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Hangers, Shaft, Bracket

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Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
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Weller Mfg. Co., Chicago, Ill.
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Hangers, Shaft, Ring Oiling

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Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
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Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
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Weller Mfg. Co., Chicago, Ill.
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Hangers, Shaft, Self Oiling

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Filer & Stowell Co., The, Milwaukee, Wis.
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Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Sprout, Waldron & Co., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Walker-Turner Co., Inc., Plainfield, N. J.
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Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Hangers, Shaft, Sling

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Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
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Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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Weller Mfg. Co., Chicago, Ill.

Hangers, Sprinkler

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Hardeners, Concrete and Cement

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Horn, A. C., Co., Long Island City, N. Y.

Hardness Testing Instruments

(See "Instruments, Testing, Hardness")

Hardware, Marine

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Everitt Co., The, Boston, Mass.
Leetonia Tool Co., The, Leetonia, Ohio.
Mueller Brass Co., Port Huron, Mich.
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Parker, Chas., Co., The, Meriden, Conn.
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Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Thomas Laughlin Co., The, Portland, Me.
Torrey Roller Bushing Works, Bath, Me.
Washburn Co., The, Worcester, Mass.
Wodack Electric Tool Corp., Chicago, Ill.
Yale & Towne Mfg. Co., The, Stamford, Conn.

Hardware, Pole and Line, Galvanized

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Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Upson-Walton Co., The, Cleveland, Ohio.
Wrought Iron Co. of America, Lebanon, Pa.

Hasps, Hinge

Sargent & Co., New Haven, Conn.
Stanley Works, The, New Britain, Conn.
Torrey Roller Bushing Works, Bath, Me.
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Hasps, Staple

(See "Staples and Hasps")

Hatchets

(See "Axes and Hatchets")

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Hats, Safety, Miners'

(See "Caps and Hats, Safety, Miners'")

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Keating, E. F., Co., New York, N. Y.
Midwest Piping & Supply Co., St. Louis.
Mitchell, W. K., & Co., Inc., Philadelphia.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Shaw Kendall Engineering Co., The, Toledo, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Heads, Beam

American Pulley Co., The, Philadelphia, Pa.

Heads, Boiler, Flanged and Dished

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Ryerson, Joseph T., & Sons, Chicago, Ill.

Heads, Boring

Chicago Tool & Engineering Co., Chicago.
Craley, C. C., Manufacturing Co., Shillington, Pa.
Gairing Tool Co., The, Detroit, Mich. (Swing tool)
Gisholt Machine Co., Madison, Wis.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Lovejoy Tool Co., Inc., Springfield, Vt.
Westcott Chuck Co., Oneida, N. Y.

Heads, Cutter, Woodworking

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Philadelphia.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hermance Machine Co., Williamsport, Pa.
Mattison Machine Works, Rockford, Ill.
Northfield Foundry & Machine Co., Northfield, Minn.
Ohlen-Bishop Co., The, Columbus, Ohio.
Orum, S. R. M., Inc., Philedalphia, Pa.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Heads, Die

Geometric Tool Co., The, New Haven, Conn.
Hudson-Sharp Machine Co., Green Bay, Wis.
National Acme Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.

Heads, Die Threading

Geometric Tool Co., The, New Haven, Conn.
National Acme Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.

Heads, Dividing and Indexing

Knight, W. B., Machinery Co., St. Louis.

Heads, Drill

Barnes Drill Co., Rockford, Ill.

Heads, Drill, Multiple Spindle

Barnes Drill Co., Rockford, Ill.
Ettco Tool Co., Inc., Brooklyn, N. Y.
Jarvis, Chas. L., Co., Gildersleeve, Conn.

Heads, Exhaust

Burt Manufacturing Co., The, Akron, Ohio.
Fisher Governor Co., The, Marshalltown, Iowa.
Kieley & Mueller, Inc., New York, N. Y.
Swartwout Co., The, Cleveland, Ohio.
Taylor Forge & Pipe Works, Chicago, Ill.
Wright-Austin Co., Detroit, Mich.

Heads, Facing

Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Mummert-Dixon Co., Hanover, Pa.

Heads, Grinding and Polishing

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Heads, Spray

Paasche Airbrush Co., Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Yarnall-Waring Co., Philadelphia, Pa.

Heads, Sprinkler

Grinnell Co., Inc., Providence, R. I.
Puro Sanitary Fountain Co., Haydenville, Mass.

Heads, Turret

Gisholt Machine Co., Madison, Wis.

Heads, Working

(See "Pumps, Deep Well")

Heaters, Asphalt and Tar

Aeroil Burner Co., Inc., West New York, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Unique Manufacturing Co., Inc., Chicago.

Heaters, Concrete

Aeroil Burner Co., Inc., West New York, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Trent, Harold E., Co., Philadelphia, Pa.
Unique Manufacturing Co., Inc., Chicago.

Heaters, Feed Water

American Injector Co., Detroit, Mich.
Harris, Arthur, & Co., Chicago, Ill.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Worthington Pump & Machinery Corp., Harrison, N. J.

Heaters, Fuel Oil

Bernz, Otto, Co., Inc., Rochester, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis, Minn.
Foster Wheeler Corp., New York, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Watts Regulator Co., Lawrence, Mass.

Heaters, Garage

Buffalo Forge Co., Buffalo, N. Y.
Crane Co., Chicago, Ill.
Keystone Boiler & Foundry Co., Landisville, Pa.
Metal Specialties Mfg. Co., Chicago, Ill.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Nason Manufacturing Co., New York, N. Y.
National Radiator Corp., Johnstown, Pa.
Russell Electric Co., Chicago, Ill.

Heaters and Pots, Glue

Aeroil Burner Co., Inc., West New York, N. J.
Black & Decker Mfg. Co., The, Towson, Md. (Electric)
Cutler-Hammer, Inc., Milwaukee, Wis.
Dallett Co., The, Philadelphia, Pa.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Hollands Mfg. Co., Erie, Pa.
Instantaneous Glue Converter Co., Cincinnati, Ohio.
Nason Manufacturing Co., New York, N. Y.
Pancoast, Henry B., Co., Philadelphia, Pa.
Russell Electric Co., Chicago, Ill. (Electric)
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Van Dorn Electric Tool Co., The, Towson, Md. (Electric)
Wallace, J. D., & Co., Chicago. (Electric)

Heaters, Industrial, Electric

American Blower Corp., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Cutler-Hammer, Inc., Milwaukee, Wis.
General Electric Co., Schenectady, N. Y.
Mars Car Co., The, Aurora, Ill.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.

Heaters, Ladle

Diamond Iron Works, Inc., Minneapolis, Minn.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.

Macleod Co., The, Cincinnati, Ohio.
R. S. Products Corp., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Turner Brass Works, The, Sycamore, Ill.

Heaters, Melting Pot, Electric

Cutler-Hammer, Inc., Milwaukee, Wis.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.

Heaters, Pipe, Electric

General Electric Co., Schenectady, N. Y.
Macleod Co., The, Cincinnati, Ohio.
Trent, Harold E., Co., Philadelphia, Pa.

Heaters, Rivet and Metal, Electric

Cutler-Hammer, Inc., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis, Minn.
General Electric Co., Schenectady, N. Y.
R. S. Products Corp., Philadelphia.

Heaters, Tool

Aeroil Burner Co., Inc., West New York, N. J.
G. M. Laboratories, Inc., Chicago, Ill. (Soldering iron stands)
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
R. S. Products Corp., Philadelphia.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Heaters, Unit

American Blower Corp., Detroit, Mich.
Autovent Fan & Blower Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Grinnell Co., Inc., Providence, R. I.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
National Radiator Corp., Johnstown, Pa.
Reznor Mfg. Co., Mercer, Pa. (Gas fired)
Russell Electric Co., Chicago. (Electric)
Sturtevant, B. F., Co., Boston, Mass.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Heaters, Water, Auxiliary, for Furnaces and Boilers

Bastian-Morley Co., LaPorte, Ind.
Crane Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Marion Machine Foundry & Supply Co., Marion, Ind.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Sands Mfg. Co., The, Cleveland, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Self Cleaning Strainer Co., Chicago, Ill.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Watts Regulator Co., Lawrence, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.

Heaters, Water, Portable, Contractors'

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Morley Co., LaPorte, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Helmets, Ammonia and Smoke

American-LaFrance and Foamite Corp., Elmira, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.

Helmets, Arc Welding

Buegeleisen, Harry, Brooklyn, N. Y.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Sight Feed Generator Co., Richmond, Ind.
Strauss & Buegeleisen, Brooklyn, N. Y.
Torchweld Equipment Co., Chicago, Ill.
Willson Products, Inc., Reading, Pa.

Helmets, Miners' Rescue

Holcomb Safety Garment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.

Helmets, Sand Blast

Dallett Co., The, Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Macleod Co., The, Cincinnati, Ohio.
Mine Safety Appliances Co., Pittsburgh.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Ruemelin Mfg. Co., Milwaukee, Wis.
Safety Equipment Service Co., Cleveland.
Wilson Products, Inc., Reading, Pa.

Hickeys, Pipe

(See "Benders, Conduit and Pipe")

Hinges, Steel Strap and "T"

(See "Butts and Hinges, Steel")

Hobs—Gear, Spur, Spiral and Worm

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.

Hobs, Sprocket

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Hods, Brick and Mortar

Lansing Co., Lansing, Mich.
Littleford Bros., Cincinnati, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

Hoes, Grub

(See "Picks, Mattocks and Grub Hoes")

Hoes, Rakes and Forks

Collins Co., The, Collinsville, Conn.

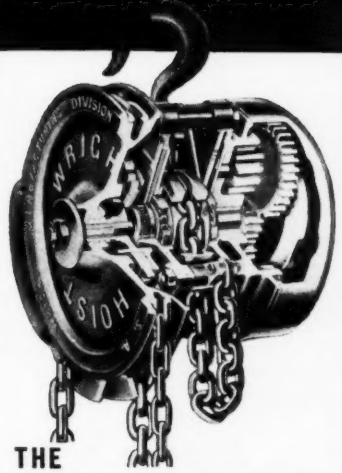
Hoists, Belt Power

American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Construction Machinery Co., Waterloo, Ia.
Dake Engine Co., Grand Haven, Mich.
Fridy Hoist and Machinery Co., Mountville, Pa.
Havana Mfg. Co., Havana, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jordan Bros., Inc., New York, N. Y.
Loane Engineering Co., Baltimore, Md.
Mason, Volney W., & Co., Boston, Mass.
O. K. Clutch & Machinery Co., Columbia, Pa.
Orr & Sembower, Inc., Reading, Pa.
Schultz, A. L., & Son, Chicago, Ill.

Hoists, Chain

American Chain Co., Inc., Bridgeport, Conn.
American Hoist & Derrick Co., St. Paul, Minn.
Boston & Lockport Block Co., East Boston, Mass.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Crane and Engineering Co., Wickliffe, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Columbus McKinnon Chain Corp., Tonawanda, N. Y. (Including differential)
Conco Engineering Works, Mendota, Ill.
Dallett Co., The, Philadelphia, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
McMillan's, W. H., Sons, New York, N. Y.
Maris Brothers, Inc., Philadelphia, Pa.
Milwaukee Electric Tool Corp., Milwaukee.

WRIGHT
HIGH-SPEED
HOISTS



THE IMPROVED MODEL

ALL EXPOSED PARTS ZINC COVERED

Every Wright Improved High-speed Hoist is tested 50% above rated capacity and a sworn statement of that test accompanies the hoist, if you wish it.

•

In addition to this all exposed parts are zinc coated thus resisting weakening from corrosive atmospheres.

•

Wright Improved High-speed Hoist contains every important improvement common to spur-geared hoists. There are 21 points of superiority including bronzed bushed load sheaves and ball bearings where speed is highest.

•

Wright Improved High-speed Hoists—capacity from 300 pounds to 40 tons—are distributed through regular wholesale channels. From the same source may be secured a complete line of Wright Trolleys and Cranes.

ACCO

NRA CODE

WRIGHT MANUFACTURING DIVISION OF
AMERICAN CHAIN COMPANY, INC.
YORK • PENN.

THE YALE & TOWNE MFG. CO.

Manufacturers of Yale Hand Chain Hoists, Electric Hoists, Hand and Motor-Driven Trolleys, Single I-Beam Cranes, Hand Lift Trucks and Skid Platforms.

PHILADELPHIA DIVISION, PHILADELPHIA, PA., U. S. A.

Yale Ball Bearing Spur Geared Chain Hoists

Yale Screw Geared Chain Hoists

Yale Differential Chain Hoists

Yale Electric Chain Hoists

YALE BALL BEARING SPUR GEARED CHAIN HOISTS
Capacities from ¼ to 40 tons.

These powerful hoists, made by the world's oldest and largest manufacturers of hoisting equipment, are the safest as well as the speediest and most efficient of all hand hoists, because they are

"FROM HOOK TO HOOK A LINE OF STEEL"

YALE SCREW GEARED CHAIN HOISTS
Capacities from ½ to 5 tons.

Suitable for horizontal as well as upright service because they are light and portable, as well as strong and durable. Operate on worm wheel and screw principle and provide close headroom.

YALE DIFFERENTIAL CHAIN HOISTS
Capacities from ¼ to 2 tons.

Designed to meet ordinary hoisting needs where the speed and power of the spur geared and screw geared types are not required. Especially suitable for service where loads are comparatively light.

YALE
Rail-Hugger Trolley Hoist

An up-to-the-minute Yale achievement which provides the closest headroom of any type of chain hoist. Unit combines a Yale Ball Bearing Spur Geared Chain Hoist with Yale Trolley equipped with Timken roller bearings.

YALE STEEL PLATE TROLLEYS
Plain and Geared Types
Capacities ¼ to 40 tons.

Strong, easy-running, with an ultimate strength of seven times their rated capacities. They traverse short radius curves easily without binding; non-rigid construction allows wheel flanges to take positions suited to the curve and slope of the I-beam flange. Dust-tight, self-oiling, equalizing roller bearings, heat-treated, hardened and ground, assure easy lateral motion.

IMPORTANT—All Yale Hoists are tested to 50% overload—long ton rating 2240 lbs.

TRADE **YALE** MARK

YALE ELECTRIC CHAIN HOISTS
Capacities from ⅛ to 3 tons.

THE YALE & TOWNE MFG. CO.
PHILADELPHIA DIVISION
Philadelphia, Pa., U. S. A.

Osborn Manufacturing Co., The, Cleveland.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
Speidel Elevator Corp., Reading, Pa.
Starline Inc., Harvard, Ill.
Union Manufacturing Co., New Britain, Conn.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

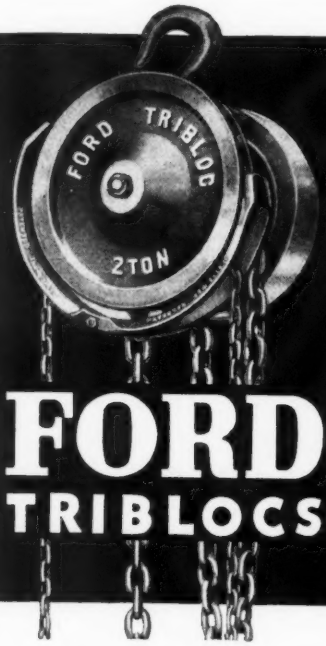
Hoists, Coal Handling

American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Fairfield Engineering Co., The, Marion, O.
Fridy Hoist and Machinery Co., Mountville, Pa.
Gifford-Wood Co., Hudson, N. Y.
Godfrey Conveyor Co., Elkhart, Ind.
Harnischfeger Corp., Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Mason, Volney W., & Co., Boston, Mass.
Miller Machine Works, Springs, Pa.
Osborn Manufacturing Co., The, Cleveland.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Shephard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co. The (Philadelphia Division), Philadelphia, Pa.

Hoists, Contractors'

American Hoist & Derrick Co., St. Paul, Minn.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Dake Engine Co., Grand Haven, Mich.
Fridy Hoist and Machinery Co., Mountville, Pa.
Godfrey Conveyor Co., Elkhart, Ind.
Hobbs, Clinton E., Co., Boston, Mass.
Ingersoll-Rand Co., New York, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Lansing Co., Lansing, Mich.
Loane Engineering Co., Baltimore, Md.
McMillan's, W. H., Sons, New York, N. Y.
Mason, Volney W., & Co., Boston, Mass.
Moore-Master Mfg. Co., Chicago, Ill.
O. K. Clutch & Machinery Co., Columbia, Pa.
Orr & Sembower, Inc., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stimmel Winch Company, Long Island City, N. Y.
Union Manufacturing Co., New Britain, Conn.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Turn to the "Trade Name Index" for trade names which are not the same as the company's name



FORD TRIBLOCS

FOR LONG-LASTING POWER AND SPEED

• The Ford Tribloc of today is the outcome of long experience in load lifting. Weaknesses and wear points of ordinary hoists were located. Resistances were built up to oppose them. So the Ford Tribloc is a hoist of remarkable durability.

The main castings are of certified malleable iron. They stand far more use and abuse than grey iron. The load chain is die-formed, side-welded electrically, and is of heat-treated high carbon steel. Hooks are drop-forged.

Ball bearing load-hook makes turning easy and prevents load chain torsion and twisting friction in load sheave. Hand chain guide keeps the chain straight and makes it impossible for chain to ride out of hand wheel pockets.

Ask your jobber. Through him get these safe, fast smooth-working Ford Triblocs. They come in capacities from ¼ ton to 40 tons. He can also furnish a complete line of Ford Trolleys.

NRA CODE

ACCO

FORD CHAIN BLOCK COMPANY
PHILADELPHIA, PA.
AN ASSOCIATE OF
AMERICAN CHAIN COMPANY, INC.

ROUND-HOISTS

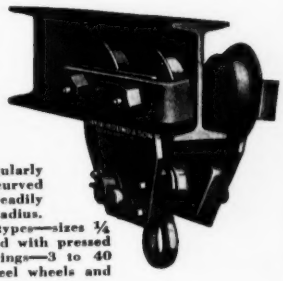
THE ROUND AUTO-BLOC

A new, precision built, high speed hoist with highest efficiency and lowest weight of any in its class. It is compact and easy to handle. Helicoid gearing develops greater hoisting energy than heretofore obtainable in a hand hoist. Timken roller or ball bearings are used throughout. It has a rated efficiency of 90% and weighs about 1/3 less than the average spur-gear hoist of equal capacity.

Capacity In Tons	Regular Lift in Feet	Distance Between Hooks: Shortest in Inches	Distance Between Hooks: Reach (Reg. Lift)	Chain Pull to Lift Full Load in Pounds
½	8	14¼	9′ 2¼″	50
1	8	17	9′ 5″	70
1½	8	20	9′ 8″	85½
2	9	23	10′11″	93
3	10	26½	12′ 2½″	88
4	10	29	12′ 5″	104
5	12	34	14′10″	88
6	12	34	14′10″	104
8	12	37½	15′ 1½″	107
10	12	42	15′ 6″	120

Data on other sizes up to 20 tons and prices on all sizes sent upon request.

SELF-ALIGNING STEEL PLATE TROLLEYS

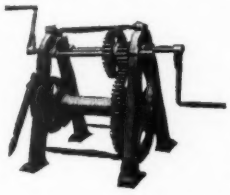


ROUND trolleys are particularly recommended for use on curved I-beams; are flexible and readily negotiate curves of short radius. Made in plain and geared types—sizes ¼ to 2 tons capacity are fitted with pressed steel wheels and ball bearings—3 to 40 tons capacity with solid steel wheels and roller bearings.

Capacity in Tons	For Standard I-Beam. Size	Smallest Radius Curve	Net Weight in Pounds
¼	4″ 7.7 lb.	24″	25
½	5″ 10.0 lb.	24″	28
1	6″ 12.5 lb.	27″	45
1½	7″ 15.3 lb.	33″	76
2	8″ 18.4 lb.	42″	86
3	9″ 21.8 lb.	48″	96
5	12″ 31.8 lb.	60″	200
6-40	On application		

THE LITTLE WIZARD HOIST

This efficient little hoist was designed to provide a modern light weight, easy lifting block of low cost. Double roller bearings and alemite lubrication insure ease of operation. Internal safety ratchet (a patented feature) sustains load and eliminates any possibility of load descending unaided. Built in ½ and 1 ton capacities.



ROUND DOUBLE PURCHASE CRABS

ROUND Double Purchase Crabs or Winches are recommended for moving heavy objects with maximum ease and efficiency. They may be operated by power, by merely substituting longer shafts with tight and loose pulleys.

ROUND SAFETY WALL WINCHES

ROUND Safety Wall Winches are designed to provide an easy, quick and safe method of handling light loads. They may be bolted to walls, posts, floors or benches in either horizontal or vertical positions. They are worm-geared and both raising and lowering of load are directly controlled by the handle.

Capacity	Pull In Pounds	Gear Ratio	Net Weight
500 lb.	30	18 to 1	54 lb.
750 lb.	40	17 to 1	69 lb.
1,000 lb.	50	25 to 1	85 lb.
1,500 lb.	90	29 to 1	122 lb.

DAVID ROUND & SON, Cleveland, O.

Manufacturers Since 1869

Hoists, Hand Power

American Hoist & Derrick Co., St. Paul, Minn.
Beebe Bros., Seattle, Wash.
Canton Foundry & Machine Co., The, Canton, Ohio.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dallett Co., The, Philadelphia, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Euclid-Armington Corp., Euclid, Ohio.
Hall Manufacturing Co., Cedar Rapids, Ia.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Lewis-Shepard Co., Boston, Mass.
Maris Brothers, Inc., Philadelphia, Pa.
Osborn Manufacturing Co., The, Cleveland.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Speidel Elevator Corp., Reading, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Union Manufacturing Co., New Britain, Conn.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Hydraulic

Cardwell Machine Co., The, Richmond, Va.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Keckley, O. C., Co., Chicago, Ill.
Lewis-Shepard Co., Boston, Mass.
United Machinery Co., Portland, Ore.
United States Air Compressor Co., Cleveland, Ohio.
Wood, H. C., Machine Works, San Francisco, Calif.

Hoists, Electric

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Chain Co., Inc., Bridgeport, Conn.
American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Crane and Engineering Co., Wickliffe, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Coffing Hoist Co., Danville, Ill.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Construction Machinery Co., Waterloo, Ia.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Euclid-Armington Corp., Euclid, Ohio.
Fridy Hoist and Machinery Co., Mountville, Pa.
Gifford-Wood Co., Hudson, N. Y.
Godfrey Conveyor Co., Elkhart, Ind.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland, O.
Lewis-Shepard Co., Boston, Mass.
Loane Engineering Co., Baltimore, Md.
Maris Brothers, Inc., Philadelphia, Pa.
Mason, Volney W., & Co., Boston, Mass.
Milwaukee Electric Crane & Hoist Corp., West Allis, Wis.
O. K. Clutch & Machinery Co., Columbia, Pa.
Osborn Manufacturing Co., The, Cleveland.
Products Manufacturing Co., Milwaukee, Wis.
Reading Chain & Block Corp., Reading, Pa.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
United Machinery Co., Portland, Ore.
Wood, H. C., Machine Works, San Francisco, Calif.
Wright Manufacturing Co., York Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Friction

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Beaumont, R. H., Co., Philadelphia, Pa.
Construction Machinery Co., Waterloo, Ia.
Dake Engine Co., Grand Haven, Mich.
Fridy Hoist and Machinery Co., Mountville, Pa.
Havana Mfg. Co., Havana, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Jaeger Machine Co., The, Columbus, Ohio.
Jeffrey Mfg. Co., The, Columbus, Ohio.
Loane Engineering Co., Baltimore, Md.
Manufacturers Equipment Co., The, Dayton, Ohio.
Mason, Volney W., & Co., Boston, Mass. (Wool)
Schultz, A. L., & Son, Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Wright Manunfacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Geared Trolley

American Chain Co., Inc., Bridgeport, Conn.
Chicago Pneumatic Tool Co., New York.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Euclid-Armington Corp., Euclid, Ohio.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Industrial Brownhoist Corp., Cleveland.
Ingersoll-Rand Co., New York, N. Y.
Maris Brothers, Inc., Philadelphia, Pa.
Reading Chain & Block Corp., Reading, Pa.
Round, David, and Son, Cleveland, Ohio.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
Union Manufacturing Co., New Britain, Conn.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Monorail Trolley

Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Cleveland Crane and Engineering Co., Wickliffe, Ohio.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
Euclid-Armington Corp., Euclid, Ohio.
Fairfield Engineering Co., The, Marion, O.
Ford Chain Block Co., Philadelphia, Pa.
Godfrey Conveyor Co., Elkhart, Ind.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Keckley, O. C., Co., Chicago, Ill.
Maris Brothers, Inc., Philadelphia, Pa.
Milwaukee Electric Crane & Hoist Corp., West Allis, Wis.
Osborn Manufacturing Co., The, Cleveland.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, & Son, Cleveland, Ohio.

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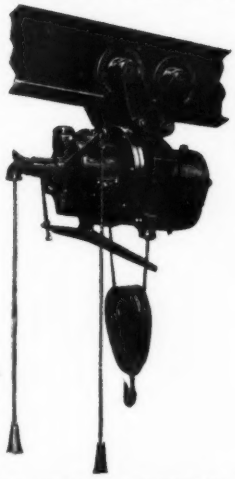

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Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hoists, Pneumatic

Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis.
Dake Engine Co., Grand Haven, Mich.
Detroit Hoist & Machine Co., Detroit, Mich.
Hannifin Mfg. Co., Chicago, Ill.
Hobbs, Clinton E., Co., Boston, Mass.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Joyce-Cridland Co., The, Dayton, Ohio.
Keckley, O. C., Co., Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Hoists, Portable

American Hoist & Derrick Co., St. Paul, Minn.
Canton Foundry & Machine Co., The, Canton, Ohio.
Cardwell Machine Co., The, Richmond, Va.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dake Engine Co., Grand Haven, Mich.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Euclid-Armington Corp., The, Euclid, Ohio.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Co., The, Philadelphia, Pa.
Ingersoll-Rand Co., New York, N. Y.
Lewis-Shepard Co., Boston, Mass.
Mason, Volney W., & Co., Boston, Mass.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Round, David, and Son, Cleveland, Ohio.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Speidel Elevator Corp., Reading, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stimmel Winch Co., Long Island City, N. Y.
Union Mfg. Co., New Britain, Conn.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Holders, Bag

Fairbanks Co., The, New York, N. Y.
Mountville Mfg. Co., Mountville, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Holders for Bit Brace Shank Tools

Greenfield Tap & Die Corp., Greenfield, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.

Holders, Card, Metal

Bay State Stamping Co., Worcester, Mass.
Cleveland Wire Spring Co., The, Cleveland.
Detroit Stamping Co., Detroit, Mich.
Haddon Bin Label Co., Hadden Heights, N. J.
Matthews, Jas. H., & Co., Pittsurgh, Pa.
Sargent & Co., New Haven, Conn.

Holders, Danger, Flag

Coffing Hoist Co., Danville, Ill.

Holders, Die and Tap

Brown & Sharpe Mfg. Co., Providence, R. I.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Chicago Tool & Engineering Co., Chicago.
Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.

Holders, Drill

Armstrong Bros. Tool Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Rawlplug Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.

Holders, Electrode, Welders'

General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.

Holders, Extension Bit

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Holders, File

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Holders, Floating, for Taps, Reamers and Counterbores

Brown & Sharpe Mfg. Co., Providence, R. I.
Gairing Tool Co., The, Detroit, Mich.
Procunier Safety Chuck Co., Chicago, Ill.
Scully-Jones & Co., Tool Division, Chicago.

Holders, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Jiffy Fire Hose Rack Co., New York, N. Y.
Mulconroy Co., Inc., Philadelphia, Pa.

Holders, Knurl

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Pratt & Whitney Co., Hartford, Conn.
Williams, J. H., & Co., Buffalo, N. Y.

Holders, Nipple

(See "Chucks and Holders, Nipple")

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Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Gross Rubber Co., Sharon, Pa.
Mine Safety Appliances Co., Pittsburgh, Pa.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Hoods, Buffing and Grinding Wheel

Burt Manufacturing Co., The, Akron, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Hoods, Dust, for Head Covering

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Gross Rubber Co., Sharon, Pa.
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Hoods, Forge

Burt Manufacturing Co., The, Akron, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Hoods, Smoke

Burt Manufacturing Co., The, Akron, Ohio.
Chicago Eye Shield Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

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Mine Safety Appliances Co., Pittsburgh.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Simons Paint Spray Brush Co., Dayton, O.
Willson Products, Inc., Reading, Pa.

Hooks, Belt

(See "Fasteners and Hooks, Belt")

Hooks, Bench

(See "Dogs and Hooks, Bench")

Hooks, Box and Bale Handling

American Swiss File & Tool Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.
Leach Co., Oshkosh, Wis.

Hooks, Cant

(See "Cant Hooks")

Hooks, Chain

American Chain Co., Bridgeport, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Cleveland Chain & Mfg. Co., Cleveland, O.
Dixie Logging Tool Co., Chattanooga, Tenn.
Taylor, S. G., Chain Co., Hammond, Ind.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hooks, Cornice, Painters'

McMillan's W. H., Sons, New York, N. Y.
Patent Scaffolding Co., The, Chicago, Ill.
Sargent & Co., New Haven, Conn.

Hooks, Cotton and Cargo

Boston & Lockport Block Co., East Boston, Mass.
Drew, C., & Co., Kingston, Mass.
Sargent & Co., New Haven, Conn.

Hooks, "8" or "S"

Bernz, Otto, Inc., Rochester, N. Y.
Boston & Lockport Block Co., East Boston, Mass.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., Cleveland, O.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Hooks, Fire Pail

Allen, W. D., Mfg. Co., Chicago, Ill.
American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Jiffy Fire Hose Rack Co., New York, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Hooks, Grab and Slip

American Chain Co., Bridgeport, Conn.
Jiffy Fire Hose Rack Co., New York, N. Y.
Leach Co., Oshkosh, Wis.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.

Hooks, Hoist, Drop Forged

American Chain Co., Bridgeport, Conn.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Boston & Lockport Block Co., East Boston, Mass.
Cleveland Chain & Mfg. Co., Cleveland, O.
Gears and Forgings, Inc., Cleveland, Ohio.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Richards-Wilcox Mfg., Aurora, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Williams, J. H., & Co., Buffalo, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Hooks, Packing Extracting

Greene, Tweed & Co., New York, N. Y.

Hooks, Pipe, Drive

Brooks, M. S., & Sons, Inc., Chester, Conn.
Chicago Expansion Bolt Co., Chicago, Ill.
Hubbard & Co., Pittsburgh, Pa.
Lupton's, David, Sons, Co., Philadelphia.
Sargent & Co., New Haven, Conn.
Western Wire Products Co., St. Louis, Mo.

Hooks, Screw

Brooks, M. S., & Sons, Inc., Chester, Conn.
Chain Products Co., The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Hoppers, Concrete

Chain Belt Co., Milwaukee, Wis.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Horses, Steel

Angle Steel Stool Co., Plainwell, Mich.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Patent Scaffolding Co., The, Chicago, Ill.
Royal Metal Mfg. Co., Chicago, Ill.
Toledo Pressed Steel Co., The, Toledo, O.

Hose, Acid

Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Continental Rubber Works, Erie, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
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Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Whitehead Bros., Rubber Co., Trenton, N.J.

Hose, Cotton, and Cotton, Rubber Lined

Boston Woven Hose & Rubber Co., Cambridge, Mass.
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Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Jiffy Fire Hose Rack Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Paasche Airbrush Co., Chicago, Ill.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

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Hose, Divers'

(See "Hose, Rubber")

Hose Ends

(See "Ends, Hose")

Hose, Engine and Tender

(See "Hose, Rubber")

Hoose, Fire Engine

(See "Hose, Cotton," "Hose, Rubber," and "Hose, Linen")

Hose, Gas

Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.

Hose, Gasoline

Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Bowser, S. F., and Co., Fort Wayne, Ind.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Hydraulic

Asch & Co., Inc., New York, N. Y.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Linen

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Electric Hose & Rubber Co., Wilmington, Del.
Fenwick-Reddaway Mfg. Co., Newark, N. J.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Jiffy Fire Hose Rack Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhanttan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.

Hose or Tubing, Metallic, Flexible

Atlantic Metal Hose Co., Inc., New York.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cory, Chas., & Son, Inc., New York, N. Y.
DeVilbiss Co., The, Toledo, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
H. D. B. Corporation, Chicago, Ill.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Ohio Rubber Co., The, Cleveland, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Mill

(See "Hose, Cotton, and Cotton, Rubber Lined")

Hose, Oil

Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Co., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Oxy-Acetylene

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.

K-G Welding & Cutting Co., Inc., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linde Air Products, Inc., The, New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Pittsburgh Thermoline Co., Pittsburgh.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Sight Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco, Cal.
Weldit Acetylene Co., Detroit, Mich.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Paint Spray

Air Reduction Sales Co., New York, N. Y.
Atlantic Metal Hose Co., Inc., New York.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., The, Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
H. D. B. Corporation, Chicago, Ill.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Paasche Airbrush Co., Chicago, Ill.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Simplex Spray Equipment Co., Chicago.
Spraco, Inc., Somerville, Mass.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
United States Air Compressor Co., Cleveland, Ohio.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Radiator

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattatn, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Instrument Mfg. Co., Inc., New York, N. Y.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Rotary Driller

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Rubber

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross, Wm. M., Co., Sharon, Pa.
H. D. B. Corporation, Chicago, Ill.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keating, E. F., Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Phila-Philadelphia, Pa.
Linde Air Products, Inc., The, New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Safety Fire Extinguisher Co., The, New York, N. Y.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Rubber, Air

Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Pneumatic Tool Co., New York.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
DeVilbiss Co., The, Toledo, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., The, Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Gross, Wm. M., Co., Sharon, Pa.
H. D. B. Corporation, Chicago, Ill.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Paasche Airbrush Co., Chicago, Ill.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Simplex Spray Equipment Co., Chicago, Ill.
Spraco, Inc., Somerville, Mass.
Standard Packing & Rubber Co., New York.
Stevens, Walden, Inc., Worcester, Mass. (Auto and bicycle)
Thermoid Rubber Co., Trenton, N. J.
United States Air Compressor Co., Cleveland, Ohio.
Whitehead Bros., Rubber Co., Trenton, N. J.

Hose, Rubber, Armored

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodyear Tire & Rubber Co., The, Akron, O
Home Rubber Co., Trenton, N. J.
Ingersoll-Rand Co., New York, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.

Hose, Rubber, Asbestos Covered

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Ingersoll-Rand Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Sand Blast

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Gates Rubber Co., Denver, Colo.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Cal.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Ruemelin Mfg. Co., Milwaukee, Wis.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Steam

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.

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Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Ingersoll-Rand Co., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Titeflex Metal Hose Co., Newark, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Suction

Allen & Billmyre Co., Inc., New York, N. Y.
Atlantic Metal Hose Co., Inc., New York.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Breeze Corporations, Inc., Newark, N. J.
Chicago Tubing & Braiding Co., Maywood, Ill.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linde Air Products, Inc., The, New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.

Hose, Welding

(See "Hose, Oxy-Acetylene")

Housings, Valve

Clow, James B., & Sons, Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco.
S. E. T. Valve and Hydrant Co., New York.

Hubs, Saddle

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.

Humidfiers

Bishop & Babcock Sales Co., Cleveland, O.
Bristol Co., The, Waterbury, Conn.
Buffalo Forge Co., Buffalo, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Emerson Electric Mfg. Co., The, St. Louis.
Grinnell Co., Inc., Providence, R. I.
Klipfel Mfg. Co., Chicago, Ill.
Midwest Manufacturing Co., Bradford, Pa.
National Dry Kiln Co., The, Indianapolis, Ind. (Dry kiln)
Powers Regulator Co., The, Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Sturtevant, B. F., Co., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Co., Rochester, N. Y.

Hydrant Sets, Leather

(See "Sets, Hydrant, Leather")

Hydrants, Garage and Stable

American Foundry & Mfg. Co., St. Louis.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Railroad

American Foundry & Mfg. Co., St. Louis.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Self-Closing

American Foundry & Mfg. Co., St. Louis.
Kupferle, John C., Foundry Co., St. Louis.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Sprinkling

American Foundry & Mfg. Co., St. Louis.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
M & H Valve & Fittings Co., Anniston, Ala.
Marion Malleable Iron Works, Marion, Ind.
Mueller Co., Decatur, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Hydrants, Wall

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.

Hydrometers

Bristol Co., The, Waterbury, Conn.
Grinnell Co., Inc., Providence, R. I.
Moeller Instrument Co., Inc., Brooklyn.
Philadelphia Thermometer Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Victor Instrument Mfg. Co., Inc., New York, N. Y.

Idlers, Belt

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Boice, W. B. & J. E., Toledo, Ohio.
Chain Belt Co., Milwaukee, Wis.
Chicago Belting Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Dodge Manufacturing Corp., Mishawaka, Ind.
Downs, I. G., Denver, Colo.
Fairfield Engineering Co., Marion, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Saginaw Stamping & Tool Co., Saginaw, Mich. (Conveyor)
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sutorbilt Corporation, Los Angeles, Cal.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Illuminators, Water Column

Huyette, Paul B., Co., Inc., Philadelphia.
Keckley, O. C., Co., Chicago, Ill.
Wright-Austin Co., Detroit, Mich.

Incinerators

(See "Burners or Incinerators")

Indexing Fixtures for Machine Tools

(See "Fixtures, Indexing")

Indicators, Ammonia

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Linde Air Products, Inc., The, New York.
Lunkenheimer Co., The, Cincinnati, Ohio.
Trill Indicator Co., Corry, Pa.

Indicators, Combustion and Flue Gas

(See "Recorders and Indicators, Combustion and Flue Gas, or Carbon Dioxide")

Indicators, Flow

Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Brown Instrument Co., The, Philadelphia.
Essex Brass Corp., Detroit, Mich.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Nugent, Wm., & Co., Chicago, Ill.

Republic Flow Meters Co., Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.

Indicators, Gas Engine

Bristol Co., The, Waterbury, Conn.
Trill Indicator Co., Corry, Pa.

Indicators, Hydraulic

Bristol Co., The, Waterbury, Conn.
Foxboro Co., The, Foxboro, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilliad, Ohio.

Indicators, Low Water

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Cutler-Hammer, Inc., Milwaukee, Wis.
Fisher Governor Co., The, Marshalltown, Iowa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Pacific Mfg. & Equipment Co., San Francisco, Calif.
Schutte & Koerting Co., Philadelphia, Pa.

Indicators, Pyrometer

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Illinois Testing Laboratories, Inc., Chicago.
Leeds & Northrup Co., Philadelphia, Pa.
Republic Flow Meters Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.

Indicators, Specific Gravity

(See "Recorders and Indicators, Specific Gravity")

Indicators, Speed

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Cory, Chas., & Son, Inc., New York, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Greene, Tweed & Co., New York, N. Y.

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Made in three types: (1) Standard, (2) High Pressure and (3) Low Pressure Non-Lifting. They guard against boiler feed failures in heating and power plants throughout the country; also used on many oil field boilers. Write for complete catalog.

PENBERTHY INJECTOR CO.
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A one-piece, heavy-duty, double-expanding, double-ended masonry anchor for bolts. Foolproof—can't be installed improperly. It has tremendous holding power. A real demand, real profits, and a real Jobbers' Merchandising Plan to keep things humming. Write for details.

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97 Lafayette St., New York, N. Y.—*and everywhere*

Manufacturers' Belt Hook Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Misener Mfg. Co., Inc., Syracuse, N. Y.
Starrett, L. S., Co., The, Athol, Mass.
Veeder-Root, Inc., Hartford, Conn.

Indicators, Steam Engine

Brown Instrument Co., The, Philadelphia.
Chicago Pneumatic Tool Co., New York.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Murray, William H., Richmond Hill, New York, N. Y.
Trill Indicator Co., Corry, Pa.

Indicators, Tank

Air-Way Pump Co., Chicago, Ill.
Bowser, S. F., and Co., Fort Wayne, Ind.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Fisher Governor Co., The, Marshalltown, Iowa.

Indicators, Test, Lathe

Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp, Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.
Zina Goodell Corp., Salem, Mass.

Indicators, Valve Movement

Brown Instrument Co., The, Philadelphia.
Clow, James B., & Sons, Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

Ingots, Aluminum

Aluminum Industries, Inc., Cincinnati, O.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Michigan Smelting & Refining Co., Detroit.

Ingots — Bronze, Copper, Brass, Composition, Magnesium, Nickel Silver, Red and Yellow Metal, Tin

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn. (Bronze, copper, composition, nickel silver, and red and yellow metal)
Bearium Metals Corp., Rochester, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y. (All)
Michigan Smelting & Refining Co., Detroit, Mich. (All)
United American Metals Corp., Brooklyn, N. Y. (Tin)

Injectors

American Injector Co., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Penberthy Injector Co., Detroit, Mich.
Randle Machinery Co., The, Cincinnati, O.
Schutte & Koerting Co., Philadelphia, Pa.

Injectors, Locomotive

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Edna Brass Mfg. Co., The, Cincinnati, O.
Ohio Injector Co., The, Wadsworth, Ohio.
Randle Machinery Co., The, Cincinnati, O.
Schutte & Koerting Co., Philadelphia, Pa.

Inks, Stencil and Marking

Matthews, Jas. H., & Co., Pittsburgh, Pa.
Pannier Bros. Stamp Co., Pittsburgh, Pa. (Sheet metal marking)

Inserts or Anchors, Concrete and Masonry

Arguto Oilless Bearing Co., Philadelphia.
Chicago Expansion Bolt Co., Chicago, Ill.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Healy-Ruff Co., St. Paul, Minn.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Marion Malleable Iron Works, Marion, Ind.
Modern Mfg. Co., The, Cleveland, Ohio.
National Lead Co., New York, N. Y.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Rawlplug Co., The, Inc., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Security Insert Co., Philadelphia, Pa.
Truscon Steel Co., Youngstown, Ohio.
U. S. Expansion Bolt Co., New York, N. Y.

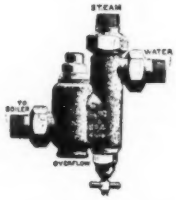
Instruments, Draughtsmen's and Engineers'

Dietzgen, Eugene, Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.
General Electric Co., Schenectady, N. Y.
Gilson Slide Rule Co., Stuart, Fla.
Grobet File Corp. of America, New York.
Gurley, W. & L. E., Troy, N. Y.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Keuffel & Esser Co., Hoboken, N. J.
Sampson Tool Co., Inc., New York, N. Y.

Instruments, Measuring and Testing

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Dietzgen, Eugene, Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Illinois Testing Laboratories, Inc., Chicago.
Leeds & Northrup Co., Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.
Moeller Instrument Co., Inc., Brooklyn.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Veeder-Root, Inc., Hartford, Conn.

U. S. AUTOMATIC INJECTORS



Standard Equipment on majority of power plant bodies, traction engines, road rollers, steam shovels, logging and hoisting engines. This provides a very wide market for replacement purposes. Regular style shown in cut, but special connections are furnished for any condition of piping. Long record of satisfactory service. Thorough testing before shipment insures satisfactory operation. Established resale prices, providing proper margin for distributors, makes the U. S. Automatic Injector a profitable line to handle.

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Detroit, Mich.

Instruments, Testing, Oil

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.
Taglibue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

Insulating Material, Electric

Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Columbian Rope Co., Auburn, N. Y.
Continental-Diamond Fibre Co., Newark, Del.
Cook's, Adam, Sons, Inc., Linden, N. J.
Cutler-Hammer, Inc., Milwaukee, Wis.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hubbard & Co., Pittsburgh, Pa.
Keasbey & Mattison Co., Ambler, Pa.
Plymouth Manufacturing Co., Chicago, Ill.
Technical Products Co., Pittsburgh, Pa.

Insulation, Conduit

(See "Filler or Insulation, Conduit")

Insulation, Waterproof, Underground Steam Line

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Johns-Manville Sales Corp., New York.
Menaugh & Co., Chicago, Ill.
Ruberoid Co., The, New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn.

Irons, Branding

General Electric Co., Schenectady, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md.

Irons, Gasket

Bernz, Otto, Co., Inc., Rochester, N. Y.

Irons, Plane

Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Irons, Soldering

(See "Coppers and Irons, Soldering")

Irons, Tuyere

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Frederick Iron & Steel Co., The, Frederick, Md.

Jacks, Automatic Lowering

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Automobile and Motor Truck

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Shawver Co., The, Springfield, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Cable Reel

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Lewis-Shepard Co., Boston, Mass.
Stimmel Winch Co., Long Island City, N. Y.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Car

American Chain Co., Inc., Bridgeport, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Horizontal

Blackhawk Mfg. Co., Milwaukeee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, House Raising

Blackhawk Mfg. Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.

Jacks, Hydraulic

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
General Electric Co., Schenectady, N. Y.
Joyce-Cridland Co., The, Dayton, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Messinger Bearings, Inc., Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Journal, or Low Height

Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Ladder

Babcock, W. W., Co., The, Bath, N. Y.
Boston & Lockport Block Co., East Boston, Mass.
Cleveland Wrought Products Co., Cleveland, Ohio.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Lifting

Blackhawk Mfg. Co., Milwaukee, Wis.
Clark Manufacturing Co., The, Philadelphia, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Oliver-Barth Jack Co., Milwaukee, Wis.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Stimnel Winch Co., Long Island City, N. Y.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Log

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Joyce-Cridland Co., The, Dayton, Ohio.
Link-Belt Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Simplex Jacks
for 35 years
have served every need
of every purchaser of
Mill Supplies
Templeton, Kenly & Co.
Established 1899
1020 S. Central Ave., Chicago, U.S.A.

Jacks, Mining

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Oil Well

American Chain Co., Inc., Bridgeport, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. Y.

Jacks, Planer

Armstrong Bros. Tool Co., Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Joliet, Ill.
Sheldon Machine Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Pneumatic

Curtis Pneumatic Machinery Co., St. Louis, Mo.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.

Jacks, Pole Pulling and Straightening

Blackhawk Mfg. Co., Milwaukee, Wis.
Coffing Hoist Co., Danville, Ill.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Pulling and Pushing

Blackhawk Mfg. Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Clark Manufacturing Co., The, Philadelphia, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Giant Mfg. Co., Council Bluffs, Iowa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Pump

(See "Pump Jacks")

Jacks, Pushing, Pipe

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. Y.

Jacks, Railroad Track

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Screw

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Millers Falls Co., Greenfield, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Screw, Electric, for Locomotive and Car Lifting

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Screw, Machinists'

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Hobbs, Clinton E., Co., Boston, Mass.

THE DUFF-NORTON MANUFACTURING CO., PITTSBURGH, PA.

The World's Largest and Oldest Manufacturers of Lifting Jacks for Every Purpose

1 to 100 TON CAPACITIES

PRODUCTS

Automatic Lowering Jacks . . . . General Purpose Jacks . . . . Automobile and Truck Jacks . . . . Ball Bearing Journal Jacks . . . . Oilwell Circle Jacks . . . . Ball Bearing Screw Jacks . . . . Self Lowering Screw Jacks . . . . Pole Pulling Jacks . . . . Trip or Track Jacks . . . . Trench and Timber Braces . . . . Jack Motor Attachments . . . . Cable Reel Jacks . . . . Push and Pull Jacks

APPLICATION

Duff-Norton Jacks are used everywhere and in all lines of industry such as railroading, ship building, bridge construction, contracting, excavating, mining, oil well drilling, telephone cable work, automobile and truck repair, etc.

They are Gold Medal Jacks having received the highest awards in every important exposition in competition with the world's best during the past 30 years.

THE NEW 4-WAY DUFF-GENUINE-BARRETT GENERAL PURPOSE JACK

Equipped with the New and Improved Single Unit Automatic Lowering Mechanism. Smooth, safe, automatic lowering is assured by this spring actuated mechanism when the reversing lever is in the down position. The Automatic Lowering Mechanism is self-contained in a Housing which can be removed bodily from the Jack. No loose pieces, bolts, or nuts to adjust within the jack.

The jack of all work . . . . sturdily built yet extremely light in weight for capacity . . . . conveniently handled and spotted . . . . easily operated by one man . . . . combines a number of lifting applications including (1) Straight lifting with load applied on head (2) Chain lifting, (3) Hook lifting and (4) Foot lifting.

No. 1523

Swivel base also permits useful lifting at various angles and is equipped with positive locking latch for upright lifting . . . . Double Socket lever aids effective operation in close and cramped quarters . . . . an ideal one man jack with a multitude of uses. Capacity 15 tons, Height 22⅞"—Raise 12"—Wt. 70 lbs.

THE DUFF-NORTON GIANT JACK No. DN-2028

No. 2028

Light Weight . . . . Heavy Duty Ratchet Jack . . . . Single Acting . . . . Automatic Lowering . . . . 20 tons capacity . . . . height 28 inches. The lifting efficiency has been increased fully 30 per cent, combining a neat balance of great lifting power and light weight so desirable among repairmen and construction crews.

It has a high rise of 18 inches . . . . all working parts fully enclosed, having no machine screws, no parts can come loose or get out of adjustment. Smooth, safe automatic lowering is assured by enclosed spring actuated mechanism when the tripping mechanism is in the down position.

DUFF-NORTON BALL BEARING JOURNAL JACK No. 2510-C

No. 2510-C

As easy to carry as a lantern . . . . designed for lifting and adjusting low set loads, tanks, structural material, etc. . . . . universally used by street and steam railways . . . . built-in positive stop feature prevents raising standard out of base.

Duff-Norton Alloy Journal Jack No. 2510-A also available in aluminum which reduces the weight 40 per cent . . . . impervious to rust. 15 ton model weighs only 19 pounds. 15, 25, 35 and 50 ton capacities.

NORTON SELF LOWERING SPEED CONTROLLED JACKS No. B-5024

Large head type with lifting foot . . . . used and preferred by bridge and wrecking crews the country over . . . . ruggedly built for the roughest outdoor use . . . . all working parts fully enclosed. Available in 25 to 100 ton capacities.

Gear and Thread Cutting a specialty—backed by unequalled facilities. Specialists in adapting and building jacks and equipment for all types of raising, lowering, pushing and pulling, and special applications of all kinds. Write for catalogue and prices.

No. B-5024

Illinois Iron & Bolt Co., Carpentersville, Ill.
Starrett, L. S., Co., The, Athol, Mass.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Self-Lowering, Governor Controlled

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.

Jacks, Stone

Blackhawk Mfg. Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.

Jacks, Telescopic

Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Traversing

Dudgeon, Richard, Inc., New York, N. Y.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
Templeton, Kenly & Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Jacks, Tumbling Barrel

Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Jackscrews

California Screw Co., San Francisco, Cal.
Duff-Norton Mfg. Co., The, Pittsburgh, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Hobbs, Clinton E., Co., Boston, Mass.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Joyce-Cridland Co., The, Dayton, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Jaws, Face Plate, for Chucks

Skinner Chuck Co., The, New Britain, Conn.
Standard Tool Co., Cleveland, Ohio
Union Mfg. Co., New Britain, Conn.

Jaws, Pipe, for Vises

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Jaws, Vise

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Ridge Tool Co., The, Elyria, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Joint Runners

(See "Runners, Joint")

Jointers

Atkins, E. C., and Co., Indianapolis, Ind.
Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Maurey Mfg. Co., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Perkins & Co., Grand Rapids, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Up-To-Date Machine Works, Inc., Chicago.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Jointers, Saw Guide

(See "Rounders or Jointers, Saw Guide")

Jointing Machines, Saw

(See "Machines—Saw Filing, Setting and Jointing")

Joints, Ball and Socket

Clow, James B., & Sons, Chicago, Ill.
Conner, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Moran Flexible Steam Joint Co., Louisville, Ky.
Morganmade, Inc., Keene, N. H.
Morrison Bros., Dubuque, Iowa.
Taylor Forge & Pipe Works, Chicago, Ill.

Joints, Pipe, Angle

Barco Manufacturing Co., Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.

Joints, Pipe, Expansion

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris, Arthur, & Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
New York Brass Foundry Co., New York.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Taylor Forge & Pipe Works, Chicago, Ill.
Walworth Co., New York, N. Y.
Yarnall-Waring Co., Philadelphia, Pa.

Joints, Pipe, Flexible

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Goodrich, B. F., Co., The, Akron, Ohio.
Moran Flexible Steam Joint Co., Louisville, Ky.
Taylor Forge & Pipe Works, Chicago, Ill.

Joints, Pipe and Tubing, Slip

Belfield, H., Co., Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hays Manufacturing Co., Erie, Pa.
Nugent, Wm. W., & Co., Chicago, Ill.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.

Joints, Pipe, Swing

Acheson Manufacturing Co., Rankin, Pa.
Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Crane Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Grinnell Co., Inc., Providence, R. I.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Valve Co., Milwaukee, Wis.
Moran Flexible Steam Joint Co., Louisville, Ky.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
New York Brass Foundry Co., New York.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Walworth Co., New York, N. Y.
Williams, Franklin, Inc., Orange, N. J.

Joints, Universal, for Machinery

Boston Gear Works, Inc., North Quincy, Mass.
Chicago Die Casting Mfg. Co., Chicago.
Connor, Miles A., Lockport, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Gray & Prior Machine Co., The, Hartford, Conn.
Medart Co., St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Kegs, Shop, Steel

Chapin, R. E., Mfg. Works, Batavia, N. Y.

Kettles, Acid and Chemical

Ampco Metal, Inc., Milwaukee, Wis.
Bucyrus Copper Kettle Works Co., The, Bucyrus, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Littleford Bros., Cincinnati, Ohio.

Kettles, Asphalt

Aeroil Burner Co., Inc., West New York, N. J.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Kettles, Copper

Bucyrus Copper Kettle Works Co., The, Bucyrus, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Harris, Arthur, & Co., Chicago, Ill.

Kettles and Pots, Galvanizing

Buffalo Forge Co., Buffalo, N. Y.
Farquhar, A. B., Co., Ltd., York, Pa.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Kettles, Metal Melting

(See "Pots and Kettles, Metal Melting")

Kettles, Steam Jacketed

Bucyrus Copper Kettle Works, The, Bucyrus, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Harris, Arthur, & Co., Chicago, Ill.
Lancaster Iron Works, Inc., Lancaster, Pa.
Littleford Bros., Cincinnati, Ohio.
Murray Iron Works Co., Burlington, Iowa.
Pennsylvania Furnace & Iron Co., Warren, Pa.

Kettles, Tar and Pitch

Aeroil Burner Co., Inc., West New York, N. J.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.

Keys, Center or Drift

Filer & Stowell Co., The, Milwaukee, Wis.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Steel Specialty Co., Beaver Falls, Pa.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Keys, Gib

Filer & Stowell Co., The, Milwaukee, Wis.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Leard, William, Co., Inc., The, New Brighton, Pa.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morton Manufacturing Co., Muskegon Heights, Mich.
Standard Steel Specialty Co., Beaver Falls, Pa.

Keys, Hydrant and Street Washer

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Economy Manufacturing Co., Philadelphia.
Hays Manufacturing Co., Erie, Pa.

Keys, Machine

Filer & Stowell Co., The, Milwaukee, Wis.
Leard, William, Co., Inc., The, New Brighton, Pa.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morton Manufacturing Co., Muskegon Heights, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.

Standard Steel Specialty Co., Beaver Falls, Pa.
Williams, J. H., & Co., New York, N. Y.

Keys, Offset

Ohio Valley Pulley Works, Inc., Maysville, Ky.
Rockwood Mfg. Co., The, Indianapolis, Ind.

Keys, Spring

(See "Cotter Pins and Spring Keys")

Keys, Valve and Stop Cock

American Foundry & Mfg. Co., St. Louis.
Bastian-Blessing Co., Chicago, Ill.
Clow, Jame B., & Sons, Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Jenkins Bros., New York, N. Y. (Valve only)
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.

Keys, Woodruff

Morton Manufacturing Co., Muskegon Heights, Mich.
Standard Steel Specialty Co., Beaver Falls, Pa.
Whitney Mfg. Co., The, Hartford, Conn.

Keyseaters, Portable

Burr, John T., & Son, Brooklyn, N. Y.
Ryerson, Joseph T., & Son, Inc, Chicago.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Keyseating Machines

(See "Machines, Keyseating and Grooving")

Kits, Tool, Steel

Barcalo Mfg. Co., Buffalo, N. Y.
Kennedy Manufacturing Co., Van Wert, O.
Vlchek Tool Co., The, Cleveland, Ohio.

Knives, Belt

Gustafson & Scott Mfg. Co., Chicago, Ill.
Manufacturers' Belt Hook Co., Chicago.
Raniville, F. Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.
Tuck Mfg. Co., Brockton, Mass.

Knives, Chipping

Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Fletcher, Terry Co., The, Forestville, Conn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Klein, M., & Son, Chicago, Ill.
Ohio Knife Co., The, Cincinnati, Ohio.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.

Knives, Circular

Atkins, E. C., and Co., Indianapolis, Ind.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

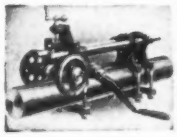
Knives—Cooperage, Leather, Paper and Veneer

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Detroit Edge Tool Works, Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Ohio Knife Co., The, Cincinnati, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Taylor, Stiles & Co., Riegelsville, N. J.

Knives, Draw

Greenlee Bros. & Co., Rockford, Ill.
Gustafson & Scott Mfg. Co., Chicago, Ill.

BURR KEYSEATERS



Used in thousands of Mills, Mines, and Factories all over the world. Repairs expedited — shut-downs often avoided. Should be in repair equipment of every large industry using transmission machinery.

Made in several sizes and types for hand and motor operation.

JOHN T. BURR & SON
433 Kent Avenue
BROOKLYN, N. Y.

Peck, Stow & Wilcox Co., Southington, Conn.
Swett, Frank W., & Son, Chicago, Ill.

Knives, Machine

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Cowles Tool Co., Cleveland, Ohio.
Detroit Edge Tool Works, Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Latrobe Tool Co., Latrobe, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohio Knife Co., The, Cincinnati, Ohio.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Taylor, Stiles & Co., Riegelsville, N. J.

Knives, Putty

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Fletcher, Terry Co., The., Forestville, Conn.
Gustafson & Scott Mfg. Co., Chicago, Ill.

Knives, Rotary

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohio Knife Co., The, Cincinnati, Ohio.

Knurls

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Williams, J. H., & Co., New York, N. Y.

Labels, Bin

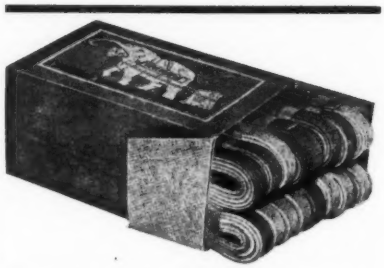
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Haddon Bin Label Co., Haddon Heights, N. J.

Lacers, Belt

Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Washburn Co., The, Worcester, Mass.

Lacing, Belt, Gut

Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Eagle Belting Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.



Only One Line Necessary When You Sell
NEVERBREAK
Chrome Belt Lacing

That's because NEVERBREAK will give the finest service regardless of the conditions under which a belt is working.

That means an easier sales job, steady repeat business, lower stock carrying costs.

Consider these facts:

Neverbreak ½ inch lace, in a recent test, showed a tensile strength of 360 pounds. It retained a tensile strength of 325 pounds after being subjected to 240 degrees Fahrenheit for 60 consecutive hours. After Neverbreak becomes wet, it invariably dries back to its original soft and pliable state.

Would you like to make an experiment with this remarkable new lace? Write for *free* full length sample laces.

CALIFORNIA TANNING CO.
1905-7-9 Shenandoah Ave.
ST. LOUIS, MO.

Lacing, Belt, Leather and Rawhide

Alexander Brothers, Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia.
Baltimore Belting Co., Baltimore, Md.
Bonner & Barnewall, Inc., New York, N. Y.
Brooklyn Rawhide Mfg. Co., Brooklyn.
Buffalo Belting Works, Buffalo, N. Y.
California Tanning Co., St. Louis, Mo.
Chicago Rawhide Mfg. Co., The, Chicago.
Eagle Belting Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Holyoke Belting Co., Holyoke, Mass.
McCauley Belting Co., Chicago, Ill.
McLanathan, F. W., & Son, Lawrence, Mass.
Manufacturers' Belt Hook Co., Chicago.
Page Belting Co., Concord, N. H.
Rahmann, Geo., & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.

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BELT LACING
—the Lace Exceptional

Each lace of a guaranteed length and width, and is wrapped in a glassine envelope. As a result, the last lace is as clean and fresh as the first one. Packed 100 ft. to a box. The most economical package from a handling and selling point.

Brooklyn Rawhide Mfg. Co.
434 Manhattan Av., Brooklyn, N.Y.

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In England at 135 Finsbury Pavement, London, E. C. 2

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Patent Scaffolding Co., The, Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.

Ladders, Roofers'

Lyon, Conklin & Co., Inc., Baltimore, Md.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.

Ladders, Step

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Lourie Manufacturing Co., Chicago, Ill.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Rowe Manufacturing Co., Galesburg, Ill.

One Address

is given editorially for Each Manufacturer Listed in the Directory Edition

This is the main or general sales office, or the one otherwise specified by the company

•

SAFE and • • DEPENDABLE!

National Safety Council, Inc. places CLIPPER BELT LACING EQUIPMENT *First* on 1933 Honor Roll.

CLIPPER BELT LACER COMPANY
GRAND RAPIDS, MICH.

Lacing, Belt, Steel and Wire

Allen, W. D., Mfg. Co., Chicago, Ill.
Armstrong-Bray & Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Crescent Belt Fastener Co., New York.
Detroit Belt Lacer Co., Detroit, Mich.
Eagle Belting Co., Chicago, Ill.
Flexible Steel Lacing Co., Chicago, Ill.
Holyoke Belting Co., Holyoke, Mass.
McCauley Belting Co., Chicago, Ill.
Safety Belt-Lacer Co., Toledo, Ohio.

Ladders, Boiler Room, Steel

Brownell Co., The, Dayton, Ohio.
Hubbard & Co., Pittsburgh, Pa. (Manhole)
Littleford Bros., Cincinnati, Ohio.

Ladders, Extension, Safety

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Keckley, O. C., Co., Chicago, Ill.
Lourie Manufacturing Co., Chicago, Ill.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.
Rowe Manufacturing Co., Galesburg, Ill.

Ladders, Fire

American-LaFrance and Foamite Corp., Elmira, N. Y.
Boyer Fire Apparatus Co., Logansport, Ind.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

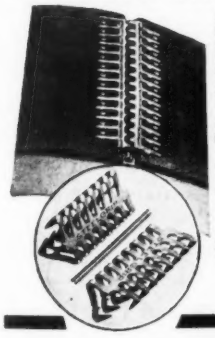
Ladders, Platform, Safety

Babcock, W. W., Co., The, Bath, N. Y.
Bauer Manufacturing Co., Wooster, Ohio.
Dayton Safety Ladder Co., Cincinnati, O.
Keckley, O. C., Co., Chicago, Ill.
Lourie Manufacturing Co., Chicago, Ill.
Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati, Ohio.

Ladders, Roller and Trolley

Milbradt Mfg. Co., St. Louis, Mo.
Myers, F. E., & Bro. Co., The, Ashland, O.

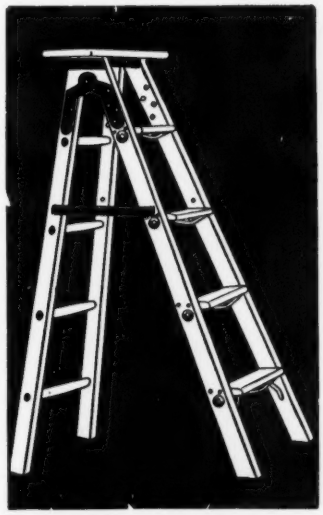
STEELGRIP
Flexible Belt Lacing



A stronger lacing (treated steel) for all transmission and conveyor belts. Goes on with hammer in few minutes. Compresses belt ends, prevents tearing or fraying. 2-piece hinged rocker pin takes up wear. 8 sizes in convenient boxes, handy cartons, long lengths—up to 72-inch always in stock. Also made of Monel Metal for use under corrosive conditions.

Write for catalog sheets.

Armstrong-Bray & Co.
"The Belt Lacing People"
307 N. Sheldon St.
Chicago, U. S. A.



RICH Safe Spruce Ladders
for every purpose

Rich Ladders are unequalled for safety and durability. Light in weight, yet sturdily built of carefully selected, air-dried spruce. The complete line of Rich Ladders includes Extension, Sectional, Paperhangers', Decorators', Rodded Ladders, etc. Write for attractive catalog.

The Rich Pump and Ladder Co.
Cincinnati, Ohio

HOLLANDS

Long Lip Pouring Ladles

Malleable Bowl
Steel Handle, Wood Grip

Diameter of Bowl Inches	Length Overall Inches	Length of Lip Inches	Capacity Pounds	Weight Each	List Price Each
3	17	2	2½	1½ lbs.	$0.50
4	19	2¾	5	2 lbs.	.70
5	21	3¼	12	3 lbs.	1.00

Malleable Iron Ladles

Diameter Inches	Length Inches	Capacity Pounds	Weight Per Doz.	List Price Per Doz.
2½	13	1	9 lbs.	$2.40
3	13	1½	10 lbs.	3.00
3½	15½	2½	14 lbs.	4.00
4	16	3½	17 lbs.	4.80
5	19	7	24 lbs.	6.00
6	21	12	30 lbs.	7.20

Babbitt Ladles

CAST BOWL

Wrought iron handles.

Diam. Inches	Capacity Pounds	Quarts	Weight Pounds	Length Over All	List Price Each
6	25	1	7	32 In.	$2.40
8	50	2	12	45 In.	3.60
10	100	4	20	52 In.	6.00

Melting Pots

No. 1

Cast bowl and wrought iron handle.

Diameter Inches	Depth Inches	Capacity Pounds	Weight Pounds	List Price Each
4	2¼	8	2	$0.40
5	2¾	10	2½	.50
6 Spl.	3	15	3	.60
6	3½	20	4	.70
7	3¾	25	5	1.00
8	4¼	35	6	1.40
9	5¼	60	10	2.00
10	5¾	90	15	2.80
No. 2—With Lip and Tilting Fixture.				
12	7½	175	24	4.20
13½	8	200	28	5.40
15	10	300	60	9.00

Glue Pots

Cast Bowl—Porcelain Lined

No.	Capacity	List Per Doz.
000	½ Pint	$8.40
00	¾ Pint	9.60
0	1 Pint	10.20
1	1½ Pint	12.00
2	2 Pint	14.40

HOLLANDS MFG. COMPANY

ERIE, PA. U. S. A.

Ladles—Metal Melting, Skimming and Pouring

American Foundry & Mfg. Co., St. Louis.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eberhard Mfg. Co., Cleveland, Ohio.
Hollands Mfg. Co., Erie, Pa.
Marion Malleable Iron Works, Marion, Ind.
Peck, Stow & Wilcox Co., Southington, Conn. (Metal melting only)
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rowell Mfg. Co., Appleton, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Unique Manufacturing Co., Inc., Chicago.

Ladles, Steel

Clayton & Lambert Mfg. Co., Detroit, Mich.

Lagging, Pulley

(See "Covering, Pulley")

Lamps, Acetylene

Air Reduction Sales Co., New York, N. Y.
Justrite Manufacturing Co., Chicago, Ill.
National Carbide Sales Corp., New York.

Lamps, Carbide

Air Reduction Sales Co., New York, N. Y.
Justrite Manufacturing Co., Chicago, Ill.
National Carbide Sales Corp., New York.
Ohlen-Bishop Co., The, Columbus, Ohio.

Lamps, Electric, Portable, Adjustable and Extension

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Bussmann Mfg. Co., St. Louis, Mo.
Creamer Glass Works, Millville, N. J.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hygrade Sylvania Corp., Salem, Mass.
Jewel Incandescent Lamp Co., E. Newark, N. J.
Koehler Mfg. Co., Marlboro, Mass.
Martindale Electric Co., Cleveland, Ohio.
McGill Manufacturing Co., Valparaiso, Ind.
Mine Safety Appliances Co., Pittsburgh.
Northern Incandescent Lamp Co., Hoboken, N. J.
Perkins Marine Lamp Corp., Brooklyn.

Lamps, Electric, Theft Proof

Kulp Electric Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.

Lamps, Engineers' Hand

Justrite Manufacturing Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Perkins Marine Lamp Corp., Brooklyn.

Lamps, Miners' Safety

Handlan-Buck Mfg. Co., St. Louis, Mo.
Mine Safety Appliances Co., Pittsburgh.
Scovill Mfg. Co., Waterbury, Conn.

Lamps, Railway Signal

General Electric Co., Schenectady, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.

Lanterns—All Kinds

Dietz, R. E., Co., New York, N. Y.
Embury Mfg. Co., Warsaw, N. Y.
Handlan-Buck Mfg. Co., St. Louis, Mo.
National Carbide Sales Corp., New York, N. Y. (Carbide)
Perkins Marine Lamp Corp., Brooklyn, N. Y. (Marine)

Lanterns, Electric, Dry Battery

American-LaFrance and Foamite Corp., Elmira, N. Y.
Burgess Battery Co., Freeport, Ill.
Economy Electric Lantern Co., Inc., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.

Lapping Machines

(See "Machines, Lapping")

Laterals, Pipe

(See "Pittings, Pipe")

Lath, Metal, Expanded

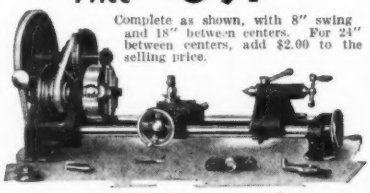
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Edwards Manufacturing Co., The, Cincinnati, Ohio.
Truscon Steel Co., Youngstown, Ohio.
Wheeling Corrugating Co., Wheeling, W. Va.

NEW! LOW COST! DIFFERENT!

The SWAYNE-ROBINSON

Series 200—Bench Lathe

***Resale Price* $39.50**



Complete as shown, with 8" swing and 18" between centers. For 24" between centers, add $2.00 to the selling price.

The Swayne-Robinson Series 200-Bench Lathe is equipped with Timken Bearings—Hollow Spindle. It is constructed on 2 one-inch polished steel bars instead of the conventional lathe bed. The construction is much less complicated than is necessary in larger lathes.

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Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
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Millers Falls Co., Greenfield, Mass.
Moseley Lathe Co., The, Elgin, Ill.
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Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
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Swayne-Robinson & Co., Richmond, Ind.
Van Norman Machine Tool Co., Springfield, Mass.
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(See "Machines, Buffing and Polishing")

Lathes, Chucking

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Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Acme Co., Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Thomas Elevator Co., Chicago, Ill.

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Swayne-Robinson & Co., Richmond, Ind.
Walker-Turner Co., Inc., Plainfield, N. J.

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Lathes, Engine

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Champion Blower and Forge Co., Lancaster, Pa.
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Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
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Lathes, Foot Power

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Sundstrand Machine Tool Co., Rockford, Ill.

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Rockford Machine Tool Co., Rockford, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
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Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Hjorth Lathe and Tool Co., Woburn, Mass.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Millers Falls Co., Greenfield, Mass.
Moseley Lathe Co., The, Elgin, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Sheldon Machine Co., Chicago, Ill.
South Bend Lathe Works, South Bend, Ind.

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Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Pratt & Whitney Co., Hartford, Conn.
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Sheldon Machine Co., Chicago, Ill.
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Gisholt Machine Co., Madison, Wis.
Le Blond, R. K., Machine Tool Co., Cincinnati, Ohio.
Lodge & Shipley Machine Tool Co., The, Cincinnati, Ohio.
Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Rockford Machine Tool Co., Rockford, Ill.
South Bend Lathe Works, South Bend, Ind.

Lathes, Turret

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Cincinnati Lathe & Tool Co., The, Oakley, Cincinnati, Ohio.
Gisholt Machine Co., Madison, Wis.
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South Bend Lathe Works, South Bend, Ind.
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Moak Machine & Tool Co., Port Huron, Mich.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
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(See "Belting, Leather")

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Eagle Counter & Leather Co., The, Cincinnati, Ohio.
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(See "Machines, Leather Working")

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Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Michigan Leather Packing Co., Detroit.
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Chicago Rawhide Mfg. Co., The, Chicago.
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Couse & Bolten, Inc., Newark, N. J.
Detroit Oak Belting Co., Detroit, Mich.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
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Michigan Leather Packing Co., Detroit.
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Page Belting Co., Concord, N. H.
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Chicago Rawhide Mfg. Co., The, Chicago.
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Detroit Oak Belting Co., The, Detroit.

Eagle Counter & Leather Co., The, Cincinnati, Ohio.
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Taylor Belting Co., The, Indianapolis, Ind.
Watson-Stillman Co., The, Roselle, N. J.
Western Packing & Supply Co., Chicago.
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Industrial Gloves Corp., Danville, Ill.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Weldit Acetylene Co., Detroit, Mich.

Legs, Bench, Cast Iron and Steel

Angle Steel Stool Co., Plainwell, Mich.
Bond Foundry & Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Lupton's, David, Sons Co., Philadelphia, Pa. (Steel only)
Noyes, B. B., Co., Greenfield, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
Toledo Pressed Steel Co., The, Toledo, O.

Legs, Lift Truck Platform

Fairbanks Co., The, New York, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.

Legs, Range Boiler

(See "Stands, Range Boiler")

Legs, Shop Seat, Cast Iron

Fairbanks Co., The, New York, N. Y.

Letters and Figures, Brass

Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Imperial Brass Manufacturing Co., Chicago, Ill.
Knight, H. W., & Son, Seneca Falls, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Premax Sales Division, Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sargent & Co., New Haven, Conn.

Letters and Figures, Pattern

Chain Products Co., Cleveland, Ohio.
Goodell-Pratt Co., Greenfield, Mass.
Knight, H. W., & Son, Seneca Falls, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Ruleta Co., Inc., New York, N. Y.
Sargent & Co., New Haven, Conn.

Levels—Architects', Contractors', Surveyors' and Engineers'

Dietzgen, Eugene, Co., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gurley, W. & L. E., Troy, N. Y.
Keuffel & Esser Co., Hoboken, N. J.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Bench

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Carpenters' and Masons'

Detroit Metal Spinning Co., Inc., Detroit.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Peerless Level & Tool Co., The, Sterling, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Machinists'

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Millwrights'

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.

Levels, Pocket

Dietzgen, Eugene, Co., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Empire Level Manufacturing Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Peerless Level & Tool Co., The, Sterling, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Levels, Track

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Klein-Logan Co., The, Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.

Lifters, Cotter Pin

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Vlchek Tool Co., The, Cleveland, Ohio.

Lifters, Valve, Gasoline Engine

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
K-D Manufacturing Co., Lancaster, Pa.
Miller Tool & Mfg. Co., Inc., Detroit.
Millers Falls Co., Greenfield, Mass.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.

Lights, Flare, Contractors'

Air Reduction Sales Co., New York, N. Y.
Dietz, R. E., Co., New York, N. Y.
Macleod Co., The, Cincinnati, Ohio.
National Carbide Sales Corp., New York.
Toledo Pressed Steel Co., The, Toledo, O.

Lights, Flood, Electric

Asch & Co., Inc., New York, N. Y.
Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Curtis Lighting, Inc., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh, Pa. (Portable)

Lining, Boiler Furnace

Botfield Refractories Co., Philadelphia.
General Refractories Co., Philadelphia.
Green, A. P., Fire Brick Co., Mexico, Mo.
Lavino, E. J., & Co., Philadelphia, Pa.
McLeod & Henry Co., Troy, N. Y.
Quigley Co., Inc., New York, N. Y.

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Lining, Brake

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Asbestos Mfg. Co., Huntington, Ind.
Burrell Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill. (Leather)
Ettco Tool Co., Inc., Brooklyn, N. Y.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Johns-Manville Sales Corp., New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N.J.
Miley, L. J., Co., Inc., Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Lining, Chute, Rubber

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
New York Belting & Packing Co., Passaic, N. J.

Lining, Sheave, Rubber

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Goodyear Tire & Rubber Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Thermoid Rubber Co., Trenton, N. J.

Lining, Sieve

Victor Balata & Textile Belting Co., New York, N. Y.

Links and Rings, Balata

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Links, Connecting, Chain

Bonney Forge & Tool Works, Allentown, Pa.
Chain Belt Co., Milwaukee, Wis.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Kilborn and Bishop Co., The, New Haven, Conn.
McMillan's, W. H., Sons, New York, N. Y.
Taylor, S. G., Chain Co., Hammond, Ind.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Links, Fusible

Cleveland Chain & Mfg. Co., Cleveland.
General Electric Co., Schenectady, N. Y.
Grinnell Co., Inc., Providence, R. I.
Jefferson Electric Co., Bellwood, Ill.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Newhall Chain Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Western Products, Inc., Newcastle, Ind.

Links, Repair, Chain

American Chain Co., Inc., Bridgeport, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Chain Belt Co., Milwaukee, Wis.
Cleveland Chain & Mfg. Co., Cleveland, O.
Eberhard Mfg. Co., Cleveland, Ohio.
Kilborn and Bishop Co., The, New Haven, Conn.
McMillan's, W. H., Sons, New York, N. Y.
Newhall Chain, Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Taylor, S. G., Chain Co., Hammond, Ind.
Thomas Laughlin Co., The, Portland, Me.
Upson-Walton Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.

Loaders, Car

Jeffrey Mfg. Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Lockers, Metal

All-Steel Equip Co., Inc., Aurora, Ill.
Art Metal Construction Co., Jamestown, N. Y.
Aurora Steel Products Co., Aurora, Ill.
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.

Lockers, Steel, Engineers' Equipment

Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Durabilt Steel Locker Co., Aurora, Ill.
Lyon Metal Products, Inc., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.

Locknuts, Machine

Acme Machine Products Co., Muncie, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Clark Bros. Bolt Co., Milldale, Conn.
Crane Co., Chicago, Ill.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rawlplug Co., Inc., New York, N. Y.
S.K.F. Industries, Inc., Philadelphia, Pa.

Locknuts, Pipe

Acheson Manufacturing Co., Rankin, Pa.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Lock Washers

(See "Washers, Lock")

Locks, Door

Eagle Lock Co., Terryville, Conn. (Also cabinet locks)
Milwaukee Hardware Co., Wm. Bolles, Prop., Milwaukee, Wis.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent & Co., New Haven, Conn.
Yale & Towne Mfg. Co., The, Stamford, Conn.

Long Screws

Acheson Manufacturing Co., Rankin, Pa.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Everitt Co., The, Boston, Mass.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, The, Baltimore, Md. (Brass)
Rochester Machine Screw Co., Rochester.
United American Bosch Corp., Springfield, Mass.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.

Lubricating Systems, High Pressure

Alemite Corp., Chicago, Ill.
Bowser, S. F., and Co., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Manzel Brothers Co., Buffalo, N. Y.
United American Bosch Corp., Springfield, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Victor Lubricator Co., Chicago, Ill.

Lubricants

(See "Grease," "Oil," "Compounds" and "Dressing")

Lubricators

(For lubricators not listed in the following classifications, see "Oilers.")

Lubricators, Air Brake

Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keckley, O. C., Co., Chicago, Ill.

Lubricators, Air Compressor

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Kellogg Manufacturing Co., Rochester.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Paasche Airbrush Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Automatic Overhead Conveyor

Saginaw Stamping & Tool Co., Saginaw, Mich.
Victor Lubricator Company, Chicago.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

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Victor Lubricator Co., Chicago, Ill.

Lubricators, Cylinder

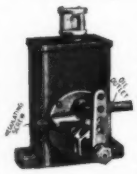
American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.

Lubricators, Engine

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Force Feed

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.



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Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Greene, Tweed & Co., New York, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCullough Manufacturing Co., Minneapolis, Minn.
Madison-Kipp Corp., Madison, Wis.
Manzel Brothers Co., Buffalo, N. Y.
Nugent Wm., W., & Co., Chicago, Ill.
Ohio Grease Co., The, Loudonville, O.
Ohio Injector Co., The, Wadsworth, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Swift Lubricator Co., Elmira, N. Y.
Turner Brass Works, The, Sycamore, Ill.
Victor Lubricator Co., Chicago, Ill.

Lubricators and Oil Cups, Gas Engine

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bay State Stamping Co., Worcester, Mass.
Bowen Products Corp., Auburn, N. Y.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hart Packing Co., Boston, Mass.
Hunter Pressed Steel Co., Lansdale, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, Ohio.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Lubricators, Graphite

Alemite Corp., Chicago, Ill.
Bowser, S. F., & Co., Fort Wayne, Ind.
Detroit Lubricator Co., Detroit, Mich.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Technical Products Co., Pittsburgh, Pa.

Lubricators, Hand Pressure

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Cook's, Adam, Sons, Inc., Linden, N. J.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Lidseen, Gustave, Inc., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, O.
Ohio Grease Co., The, Loudonville, Ohio.
Plews Oiler Co., Minneapolis, Minn.
Swift Lubricator Co., Elmira, N. Y.

Lubricators, Locomotive

Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Loose Pulley

(See "Cups, Oil, Loose Pulley" and "Lubricators, Candle")

Lubricators, Machinery, High Pressure

Alemite Corp., Chicago, Ill.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Knox Mfg. Co., Philadelphia, Pa.
Lidseen, Gustave, Inc., Chicago, Ill.
McCord Radiator & Mfg. Co., Detroit.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Swift Lubricator Co., Elmira, N. Y.
United American Bosch Corp., Springfield, Mass.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Multiple

Alemite Corp., Chicago, Ill.
Bowser, S. F., and Co., Fort Wayne, Ind.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Keystone Lubricating Co., Philadelphia.
Lunkenheimer Co., The, Cincinnati, O.
Manzel Brothers Co., Buffalo, N. Y.
McCord Radiator & Mfg. Co., Detroit.
Nugent, Wm. W., & Co., Chicago, Ill.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Plain Engine

American Injector Co., Detroit, Mich.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Penberthy Injector Co., Detroit, Mich.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Victor Lubricator Co., Chicago, Ill.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Lubricators, Shafting

Alemite Corp., Chicago, Ill.
Gits Bros. Mfg. Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Keystone Lubricating Co., Philadelphia.
Lunkenheimer Co., The, Cincinnati, Ohio.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Trico Fuse Mfg. Co., Milwaukee, Wis.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Sight Feed

Alemite Corp., Chicago, Ill.
American Injector Co., Detroit, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Hills-McCanna Corp., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator & Mfg. Co., Detroit.
McCulloough Manufacturing Co., Minneapolis, Minn.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Ohio Grease Co., The, Loudonville, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Trico Fuse Mfg. Co., Milwaukee, Wis.
Victor Lubricator Co., Chicago, Ill.

Lubricators, Telescopic

Bowser, S. F., and Co., Fort Wayne, Ind.
Gits Bros. Mfg. Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.

Lubricators, Valve Stem

Edna Brass Mfg., Co., The, Cincinnati, O.
Gits Bros. Mfg. Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.

Lugs, Boiler and Tank

Illinois Malleable Iron Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
National Malleable & Steel Castings Co., Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Lugs, Thread, Connectors, Wire

Ideal Commutator Dresser Co., Sycamore, Ill.

Machines or Ways, Balancing

Anderson Bros. Mfg. Co., Rockford, Ill.
Delta Mfg. Co., Milwaukee, Wis.
Gisholt Machine Co., Madison, Wis.
Sunstrand Machine Tool Co., Rockford, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Wallace, J. D., & Co., Chicago, Ill.

Machines, Band Saw, for Metal

Acme-Detroit Saw Corp., Detroit, Mich.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia, Pa.
Covel-Hanchett Co., Big Rapids, Mich.
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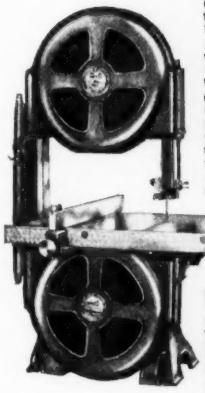
Extra Capacity

12" BAND SAW



Cast iron frame, tubular construction.

Diameter of disc wheels 12". 2 SKF Bearings to each wheel.

6 SKF Ball Bearings.

Improved cushion type spring tensioner.

Table tilts to 45° (geared control mechanism).

Table size 12½"x12" (with wood extension 18"x12").

Ball Bearing guide rollers (upper and lower).

New guide pins twist blade slightly permitting stock up to 4½" wide of any length to be sawed.

Height over all 33½".

Guards, ripping guide and table extension are regular equipment making this the most complete 12" band saw built. Read over the specifications, see it in action—then compare it to any 12" band saw on the market! Such comparison will show you—better than any other way—just how superior the Driver band saw really is. How much extra value there is in a Driver built tool. Write for new 1935 catalog on complete line.

WALKER-TURNER CO., INC.
Plainfield, N. J.
Dept. M.S.

The **WELLS**

HIGH SPEED

Model No. 8

METAL CUTTING BAND SAW

A simple, durable machine for high-speed cutting of any metal, hard or soft, thick or thin, sheet, rod or tubing. The model illustrated has a capacity up to 8" round or 8" x 16". A smaller model takes work up to 4" round or portable. No special installation necessary. 7½" x 3" flat. 6" x 4" angles.

MOTOR One-half horsepower, constant speed, ball bearing throughout.

BLADE Dimensions, 11.6" x ¾" x .031". Six blades furnished with each machine.

FLOOR SPACE 2' x 6'.

HEIGHT TO TOP OF BENCH 25½".

WEIGHT 500 lb. (crated for shipment, 650 lbs.). Guaranteed for one year against defects in material or workmanship.

This new Band Saw has the advantages of high speed, accuracy, ease of operation and low operating cost.

Write for Descriptive Literature

Wells Manufacturing Corp.
Three Rivers, Michigan

Jones Superior Machine Co., Chicago, Ill.
Maurey Mfg. Co., Chicago, Ill.
Metal Saw & Machine Co., Inc., Springfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Porter-Cable-Hutchinson Corp., Syracuse.
Racine Tool & Machine Co., Racine, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tessmer Machine & Tool Co., Detroit.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Up-To-Date Machine Works, Inc., Chicago.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Walls Sales Corp., New York, N. Y.
Wells Manufacturing Corp., Three Rivers, Mich.

Machines, Band Saw, for Wood

Allis-Chalmers Manufacturing Co., Milwaukee, Wis. (Sawmill)
Beach Mfg. Co., Montrose, Pa.
Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia.
Covel Hanchett Co., Big Rapids, Mich.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.
Filer & Stowell Co., The, Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Master Woodworker Mfg. Co., Detroit.
Maurey Mfg. Co., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Portable Power Tool Corp., Warsaw, Ind.
Porter-Cable-Hutchinson Corp., The, Syracuse, N. Y.
Power, L., & Co., Philadelphia, Pa.
Racine Tool & Machine Co., Racine, Wis.
Towsley, John T., Mfg., Co., The, Cincinnati, Ohio.
Up-To-Date Machine Works, Inc., Chicago.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Walls Sales Corp., New York, N. Y.
Wood, H. C. Machine Works, San Francisco, Calif.

Machines, Belt Lacing

(See "Lacers, Belt")

Machines, Bending, Pipe

Buffalo Forge Co., Buffalo, N. Y.
Chicago Nipple Mfg. Co., Chicago, Ill.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Gears and Forgings, Inc., Cleveland, O.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Leonard Machine Works, Lansdowne, Pa.
Parker Appliaance Co., The, Cleveland, O. (For copper pipe)
Sampson Tool Co., Inc., New York, N. Y.
Tallman Mfg. Co., Shelbyville, Ill.
Tube-Turns, Inc., Louisville, Ky.
Watson-Stillman Co., The, Roselle, N. J.
Wood, R. E., Iron & Steel, Chester, Pa.

Machines, Bending and Straightening, for Beam, Rail, Rod or Shaft

Buffalo Forge Co., Buffalo, N. Y.
Dudgeon, Richard, Inc., New York, N. Y.
Farrell-Birmingham Co., Inc., Ansonia, Conn.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lidseen, Gustave, Inc., Chicago, Ill.
Medart Co., St. Louis, Mo.
Pels, Henry, & Co., Inc., New York, N. Y.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Mfg. Co., Shelbyville, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Machines, Bending, "U"

Champion Blower and Forge Co., Lancaster, Pa.
Excelsior Tool and Machine Co., East St. Louis, Mo.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Parker Appliance Co., The, Cleveland, O.
Peck, Stow & Wilcox Co., Southington, Conn.
Rock River Machine Co., Janesville, Wis.
Tube-Turns, Inc., Louisville, Ky.
Wood, R. E., Iron & Steel, Chester, Pa.

Machines, Blasting

Hercules Powder Co., Inc., Wilmington, Del.

Machines—Bolt, Nut and Rivet

(See "Bulldozers," "Clippers—Bolt, Rivet and Wire," "Dies," "Facers, Nut," "Headers and Reheaders, Bolt," "Heads, Die," "Machines, Tapping," etc.)

Machines—Boring, Drilling and Milling Combined

Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingersoll Milling Machine Co., The, Rockford, Ill.
International Nickel Co., Inc., The, New York, N. Y.
Knight, W. B., Machinery Co., St. Louis.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Moline Tool Co., Moline, Ill.
Pratt & Whitney Co., Hartford, Conn.
Rockford Drilling Machine Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.

Machines, Boring, Wood

Beach Mfg. Co., Montrose, Pa.
Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower and Forge Co., Lancaster, Pa.
Chattanooga Machinery Co., Chattanooga, Tenn.
Colladay Machine Works, Philadelphia.
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill. (Joist and rafter)
Ingersoll-Rand Co., New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Tallman Manufacturing Co., Shelbyville, Ill. (For borrowing ties)
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D. & Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Machines, Boring and Turning

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Barnes Drill Co., Rockford, Ill.
Bickford, H., & Co., Lakeport, N. H.
Bullard Co., The, Bridgeport, Conn.
Gisholt Machine Co., Madison, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Rockford Drilling Machine Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Brazing, Kerosene and Gasoline

Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit.
Covel-Hanchett Co., Big Rapids, Mich.
Hanchett Mfg. Co., Big Rapids, Mich.
Unique Manufacturing Co., Inc., Chicago.

Machine, Broaching

Burr, John T., & Son, Brooklyn, N. Y.
Grobet File Corp. of America, New York.
Hannifin Mfg. Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Niagara Machine & Tool Works, Buffalo.

Machines, Buffing, Electric, Portable

Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Dumore Co., Racine, Wis.
Hisey-Wolf Machine Co., Cincinnati, Ohio.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Marathon Electric Mfg. Co., Wausau, Wis.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., Cincinnati, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.
Wodack Electric Tool Corp., Chicago, Ill.

Machines, Buffing, Flexible Shaft

Flexible Shafts, Inc., Binghamton, N. Y.
Haskins, R. G., Co., Chicago, Ill.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

Machines, Buffing, Pneumatic

Buckeye Portable Tool Co., The, Dayton, O.
Chicago Pneumatic Tool Co., New York.
Covel-Hanchett Co., Big Rapids, Mich.
Dallett Co., The, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Mall Tool Co., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago.

Machines, Buffing and Polishing, Stationary

Black & Decker Mfg. Co., The, Towson, Md.
Blount, J. G., Everett, Mass.
Brown & Sharpe Mfg. Co., Providence.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Dallett Co., The, Philadelphia, Pa.
Divine Brothers Co., Utica, N. Y.
Dumore Co., The, Racine, Wis.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Forbes & Myers, Worcester, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Hisey-Wolf Machine Co., The, Cincinnati.

U. S. BALL BEARING BUFFERS

½ H. P. to 20 H. P.

—the right buffing and polishing machine for every application

Model 95, illustrated herewith, is a heavy duty buffer developed by our engineers to meet the need for speeds in buffing and polishing which are not available in direct connected alternating current units of standard cycle. Four speeds are obtainable, which can be changed about simply.

Distributors can render their customers an outstanding service with the complete line of U. S. Buffers and Polishers. At the same time, they can build a fine and profitable sales volume with this exceptional line.

Write for complete facts.

The UNITED STATES ELECTRICAL TOOL CO.

2479 West Sixth St. Dept. H Cincinnati, Ohio

In Canada — Maple Leaf Electric Tools, Ltd., Toronto

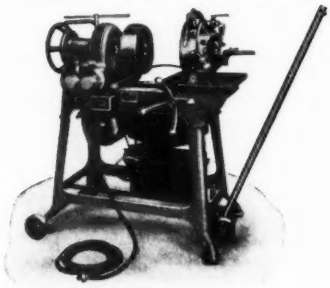
GOOD ELECTRIC TOOLS SINCE 1897

FOR **ECONOMY** AND **EFFICIENCY**

Recommend the

RED-E-HAUL

PORTABLE POWER PIPE THREADER



Cuts and threads faster because unusually powerful and easy to operate.

It has three speeds for different ranges of work.

Automatic self-opening and quick die setting controls eliminate "Backing-off" of threads.

Automatic self-opening dies assure uniform lengths.

Reaming, chamfering and cut-off tools are mounted in place ready for use.

The Red-E-Haul is a pipe fitter's machine that will save money for your customers.

Complete information gladly sent upon request.

Manufactured and sold by

AMERICAN DIE & TOOL CO., Inc.

Reading, Pennsylvania

Independent Pneumatic Tool Co., Chicago.
Leiman Bros., Inc., Newark, N. J.
Marathon Electric Mfg. Co., Wausau, Wis.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Moak Machine & Tool Co., Port Huron, Mich.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Robinson Mfg. Co., Waterbury, Conn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schauer Machine Co., The, Cincinnati, O.
Speedway Manufacturing Co., Cicero, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland.
Torrington Mfg. Co., The, Torrington, Conn.
U. S. Electrical Mfg. Co., Los Angeles, Cal.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Machines, Burnishing

(See "Barrels, Burnishing," and "Machines, Buffing and Polishing")

Machines, Burring

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt & Whitney Co., Hartford, Conn.

Machines, Centering

Gears and Forgings, Inc., Cleveland, Ohio.
Sundstrand Machine Tool Co., Rockford, Ill.

Machines, Chucking

(See "Lathes, Chucking," and "Lathes, Turret")

Machines, Cleaning, for Metal Parts

Baird Machine Co., The, Bridgeport, Conn.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Leiman Bros., Inc., Newark, N. J.
Mall Tool Co., Chicago, Ill.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Pittsburgh Crushed Steel Co., Pittsburgh.
Porter-Cable-Hutchinson Corp., The, Syracuse, N. Y.
Ruemelin Mfg. Co., Milwaukee, Wis.
Schauer Machine Co., The, Cincinnati, O.

Machines, Counting

Durant Mfg. Co., Milwaukee, Wis.
Hart, R. E., Mfg. Co., Battle Creek, Mich.
Veeder-Root, Inc., Hartford, Conn.

Machines, Cutting, Electric—Marble, Slate, Stone, Tile, Etc.

Standard Electrical Tool Co., The, Cincinnati, Ohio.

Machines, Cutting, Gear

Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R.I.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.

Machines, Cutting and Threading, Pipe

American Die & Tool Co., Inc., Reading, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Borden Co., The, Warren, Ohio.
Chicago Pipethread Machine Co., Racine, Wis. (Power pipe threading machines)
Curtis & Curtis Co., The, Bridgeport, Conn.
Ellis & Ford Mfg. Co., Detroit, Mich.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap and Die Corp., Greenfield, Mass.
Merrell Manufacturing Co., The, Toledo, O.
Nye Tool & Machine Works, The, Chicago.
Peerless Machine Co., Racine, Wis. (Power pipe threading machines)
Oster-Williams, Cleveland, Ohio.
Ridge Tool Co., Elyria, Ohio.
Strickler, W. W., & Brothers, Columbus, O. (Cutting only)
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Wodack Electric Tool Corp., Chicago, Ill.

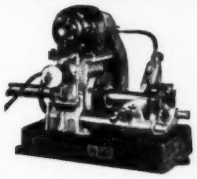
Machines, Cutting-Off, Metal

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Inc., Detroit, Mich.
Brown & Sharpe Mfg. Co., Providence, R.I.
Buffalo Forge Co., Buffalo, N. Y.
Burr, John T., & Son, Brooklyn, N. Y.
Campbell, Andrew C., Inc., Division of American Chain Co., Inc., Bridgeport, Conn.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Consolidated Machine Tool Corp. of America, Rochester, N. Y.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Gundlach, T. J., Machine Co., Belleville, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Modern Machine Tool Co., Jackson, Mich. (Lathe type)
Niagara Machine & Tool Works, Buffalo.
Oster-Williams, Cleveland, Ohio.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Peerless Machine Co., Racine, Wis.
Portable Power Tool Corp., Warsaw, Ind.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Torchweld Equipment Co., Chicago, Ill.
Torrington Mfg. Co., The, Torrington, Conn.

Machines, Die Filing and Milling

Brown & Sharpe Mfg. Co., Providence, R.I.
Colton, Arthur, Co., Detroit, Mich. (Filing)
LaPorte Machine & Tool Co., LaPorte, Ind. (Die filing and sawing)

NO. 512 "TOM THUMB" for PIPE



Threads all sizes of pipe from ½" to 2". TOM THUMB is a portable unit. Although operating from the ordinary light socket it is a complete power pipe threading machine.

The Oster-Williams line includes Stocks and Dies, Pipe and Bolt Threading Machines and Pipe Welding Tools.

OSTER-WILLIAMS
Sales Office: 2041 East 61st St.
CLEVELAND, OHIO, U. S. A.
Factories at Erie, Pa. and Cleveland, Ohio

Mall Tool Co., Chicago, Ill.
Robinson Mfg. Co., Waterbury, Conn.
Rockford Drilling Machine Co., Rockford.
Strand, N. A., & Co., Chicago, Ill.
Thurston Mfg. Co., Providence, R. I.

Machines, Die Sinking

Billings & Spencer Co., The, Hartford.
Brown & Sharpe Mfg. Co., Providence, R.I.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Knight, W. B., Machinery Co., St. Louis.
LaPorte Machine & Tool Co., LaPorte, Ind.
Mall Tool Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Preis, H. P., & Co., Inc., Newark, N. J.
Reed-Prentice Corp., Worcester, Mass.

Machines, Doweling

Gustafson & Scott Mfg. Co., Chicago, Ill.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Machines, Drilling, Automatic

Baker Bros., Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Burke Machine Tool Co., The, Conneaut, O.
Greenlee Bros. & Co., Rockford, Ill.
Independent Pneumatic Tool Co., Chicago.
Moline Tool Co., Moline, Ill.
Pratt & Whitney Co., Hartford, Conn.
Rockford Drilling Machine Co., Rockford.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Steele, W. M., Co., Worcester, Mass.
Stow Manufacturing Co., Inc., Binghamton, N. Y.

Street Addresses

or

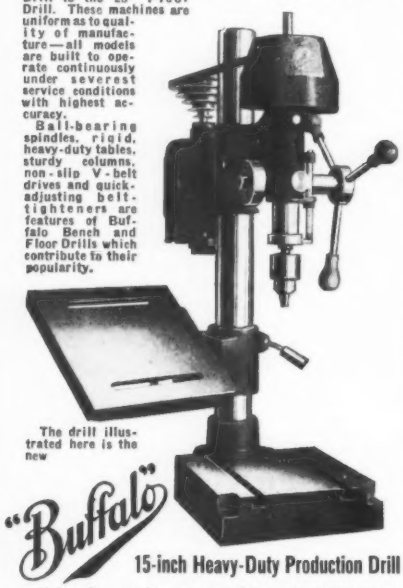
Post Office Box Numbers

of Manufacturers whose products are listed in the Directory Edition will be found in the "Names and Addresses" Section

Accurate, Modern Power Drills—All Types

Buffalo manufactures a complete line of bench and floor type power drills, ranging from the 10" Heavy Duty Bench Drill to the 25" Floor Drill. These machines are uniform as to quality of manufacture—all models are built to operate continuously under severest service conditions with highest accuracy.

Ball-bearing spindles, rigid, heavy-duty tables, sturdy columns, non-slip V-belt drives and quick-adjusting belt-tighteners are features of Buffalo Bench and Floor Drills which contribute to their popularity.



The drill illustrated here is the new

"Buffalo" 15-inch Heavy-Duty Production Drill

It has five speeds, runs smoothly up to 10,000 r.p.m. Triple ball bearings in spindle head provide perfect permanent alignment of spindle and greatest possible accuracy. This drill is also made in floor type.

Write for Bulletins.

Buffalo drills are described in a series of well illustrated bulletins which give complete information on all models. Ask for "Bulletins Covering Power Drills." No charge.

Buffalo Forge Company
478 Broadway - Buffalo, N. Y.

Machines, Drilling, Bench

Barnes, W. F. & John, Co., Rockford, Ill.
Black & Decker Mfg. Co., The, Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Burke Machine Tool Co., The, Conneaut, O.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower and Forge Co., Lancaster, Pa.
Clark, James, Jr., Electric Co., Louisville.
Delta Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Leiman Bros., Inc., Newark, N. J.
Milwaukee Electric Tool Corp., Milwaukee.
North Bros. Mfg. Co., Philadelphia, Pa.
Oliver, W. W., Mfg. Co., The, Buffalo, N. Y.
Portable Power Tool Corp., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Reed, Francis, Co., Worcester, Mass.
Rockford Drilling Machine Co., Rockford.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Schauer Machine Co., The, Cincinnati, O.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electrical Tool Co., Inc., The, New Britain, Conn.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Winterhoff Tool & Machine Co., Elkhart, Ind.
Wodack Electric Tool Corp., Chicago, Ill.

Machines, Drilling, Blacksmiths'

(See "Machines, Drilling, Post or Wall")

Machines, Drilling, Boilermakers'

Buffalo Forge Co., Buffalo, N. Y.
Flexible Shafts, Inc., Binghamton, N. Y.
Independent Pneumatic Tool Co., Chicago.
Moline Tool Co., Moline, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Drilling—Breast, Chain and Hand

Goodell-Pratt Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Hunter, James, Machine Co., North Adams, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Wodack Electric Tool Corp., Chicago, Ill.

Machines, Drilling, Close Quarter

Chicago Pneumatic Tool Co., New York.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Van Dorn Electric Tool Co., The, Towson, Md.
Wodack Electric Tool Corp., Chicago, Ill.

Machines, Drilling, Coal

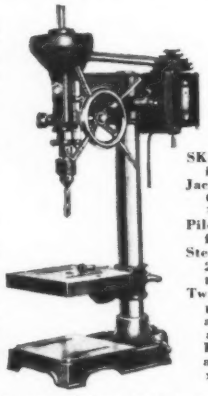
Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland.
Hisey-Wolf Machine Co., The, Cincinnati.
Ingersoll-Rand Co., New York, N. Y.
Jeffrey Manufacturing Co., The, Columbus.
Leetonia Tool Co., The, Leetonia, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Machines, Drilling, Electric, Portable

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Dumore Co., The, Racine, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Ideal Commutator Dresser Co., Sycamore, Ill.
Independent Pneumatic Tool Co., Chicago.

DRIVER PRODUCTION

DRILL PRESS



SKF Ball Bearings.
Jacob's Key Chuck (0 to ½" drills).
Pilot wheel feed.
Steel column 2½" diameter.
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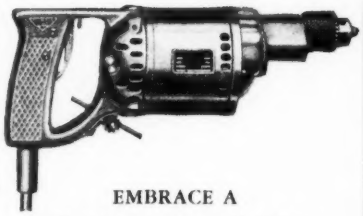

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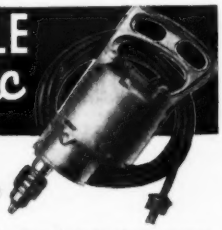

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Stow Manufacturing Co., Inc., Binghamton, N. Y.
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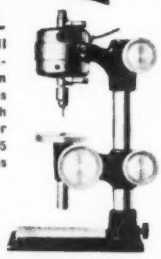
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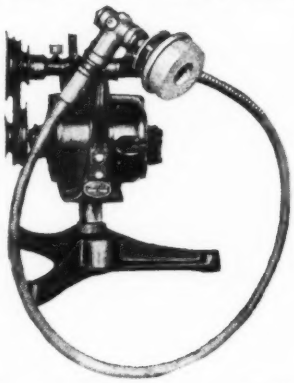
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Walker-Turner Co., Inc., Plainfield, N. J.
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Wappat, Inc., Pittsburgh, Pa. (Lock)
Wodack Electric Tool Corp., Chicago, Ill.

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Mitts and Merrill, Saginaw, Mich.
National Machine Tool Co., Racine, Wis.

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(See "Setters, Nut")

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(See "Planers")

Machines, Polishing and Buffing
(See "Machines, Buffing and Polishing, Stationary")

Machines, Pumping
(See "Pumps")

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Moline Tool Co., Moline, Ill.
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Van Dorn Electric Tool Co., The, Towson, Md.
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Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Paasche Airbrush Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Walker-Turner Co., Inc., Plainfield, N. J.

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Carborundum Co., The, Niagara Falls, N.Y.
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Curtis Machine Corp., Jamestown, N. Y.
Dallett Co., The, Philadelphia, Pa.
Empire Machine Works, Mt. Morris, N. Y.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hermance Machine Co., Williamsport, Pa.
Hisey-Wolf Machine Co., The, Cincinnati.
Hudson-Sharp Machine Co., Green Bay, Wis.
Independent Pneumatic Tool Co., Chicago.
Jones Superior Machine Co., Chicago, Ill.
Mall Tool Co., Chicago, Ill.
Master Woodworker Mfg. Co., Detroit.
Mattison Machine Works, Rockford, Ill.
Maurey Mfg. Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Schauer Machine Co., The, Cincinnati, O.
Simplex Spray Equipment Co., Chicago, Ill.
Skilsaw, Inc., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Sterling Products Co., Detroit, Mich.
Strand, N. A., & Co., Chicago, Ill.
Sundstrand Machine Tool Co., Rockford, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Up-To-Date Machine Works, Inc., Chicago.
Van Dorn Electric Tool Co., The, Towson, Md.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines—Saw Filing, Setting and Jointing
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Covel-Hanchett Co., Big Rapids, Mich.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foley Manufacturing Co., Minneapolis, Minn.
Holcomb, A. L., Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Machines, Sawing, Radial
Beach Mfg. Co., Montrose, Pa.
Skilsaw, Inc., Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Machines, Screw, Hand
Brown & Sharpe Mfg. Co., Providence, R. I.

Machines, Screw Slotting
Browne & Sharpe Mfg. Co., Providence.
Independent Pneumatic Tool Co., Chicago.

Machines, Screwdriving
Binghamton Flexible Shaft Co., Johnson City, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville.
Flexible Shafts, Inc., Binghamton, N. Y.
Haskins, R. G., Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Independent Pneumatic Tool Co., Chicago.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Mall Tool Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Procunier Safety Chuck Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Stanley Electrical Tool Co., Inc., The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Maufacturing Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wodack Electric Tool Corp., Chicago, Ill.

Machines and Tools, Sheet Metal Working
(See various headings for specific items.)
Armstrong-Blum Mfg. Co., Chicago, Ill.
Canton Foundry & Machine Co., The, Canton, Ohio.
Dallett Co., The, Philadelphia, Pa.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Mall Tool Co., Chicago, Ill.
Manning, Maxwell & Moore, Inc., New York, N. Y.
National Machine Tool Co., Racine, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Quickwork Co., The, St. Marys, Ohio.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Schauer Machine Co., The, Cincinnati, O.
Swett, Frank W., & Son, Chicago, Ill.
Torrington Mfg. Co., The, Torrington, Conn.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Whitney Metal Tool Co., Rockford, Ill.

Machines, Spraying
(See "Sprayers" and "Guns, Paint Spraying")

Machines, Tapping
Armstrong-Blum Mfg. Co., Chicago, Ill.
Baker Brothers, Inc., Toledo, Ohio.
Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.

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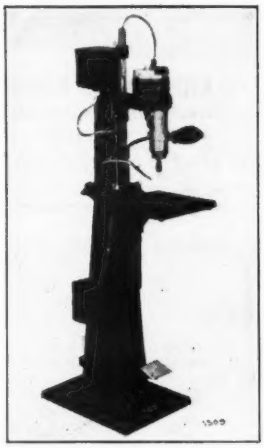

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Greenlee Bros. & Co., Rockford, Ill.
Haskins, R. G., Co., Chicago, Ill.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Mueller Co., Decatur, Ill.
Procunier Safety Chuck Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
U. S. Electrical Tool Co., The, Cincinnati.
Van Dorn Electrical Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Machines, Tapping, Electric, Portable

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Chicago Pneumatic Tool Co., New York.
Cincinnati Electrical Tool Co., Cincinnati.
Dumore Co., The, Racine, Wis.
Ettco Tool Co., Inc., Brooklyn, N. Y.
Flexible Shafts, Inc., Binghamton, N. Y.
Hisey-Wolf Machine Co., Cincinnati, Ohio.
Independent Pneumatic Tool Co., Chicago.
Milwaukee Electric Tool Corp., Milwaukee.
Portable Power Tool Corp., Warsaw, Ind.
Schauer Machine Co., The, Cincinnati, O.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Wodack Electric Tool Corp., Chicago, Ill.

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Bernz, Otto, Co., Inc., Rochester, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Macleod Co., The Cincinnati, Ohio.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.

Machines, Thread Milling

Pratt & Whitney Co., Hartford, Conn.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Torrington Mfg. Co., The, Torrington, Conn.

Machines, Thread Rolling

Torrington Mfg. Co., The, Torrington, Conn.

Machines, Threading, Bolt and Cap Screw

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence, R. I.
Curtis & Curtis Co., The, Bridgeport, Conn.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Oster-Williams, Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.

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Curtis & Curtis Co., The, Bridgeport, Conn.
Geometric Tool Co., The, New Haven.
Greenfield Tap & Die Corp., Greenfield, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.

Machines, Threading, Pipe

(See "Machines, Cutting and Threading, Pipe")

Machines, Threading, Rod

Geometric Tool Co., New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
National Acme Co., Cleveland, Ohio.

Machines, Woodworking

(See also headings for specific items)

Barnes, W. F. & John, Co., Rockford, Ill.
Beach Mfg. Co., Montrose, Pa.
Blount, J. G., Co., Everett, Mass. (Lathes)
Boice, W. B. & J. E., Toledo, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Chattanooga Machinery Co., Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Dallett Co., The, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.
Empire Machine Works, Mt. Morris, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa.
Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Leach Co., Oshkosh, Wis.
Master Woodworker Mfg. Co., Detroit, Mich.
Mattison Machine Works, Rockford, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Onan, D. W., & Sons, Minneapolis, Minn.

(Continued on Page 158)

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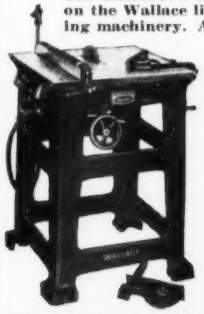

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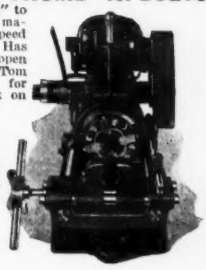

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Shawver Co., The, Springfield, Ohio.
Tessmer Machine & Tool Co., Detroit.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Mallets, Fibre

Continental-Diamond Fibre Co., Newark.
Kaalot Mfg. Co., The, Chicago, Ill.
Oliver, W. W., Mfg. Co., The, Buffalo, N.Y.

Mallets, Rawhide and Leather

(See "Hammers, Mallets and Mauls—Rawhide and Leather")

Mallets, Rubber and Composition Head

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Miller Rubber Co., The, Akron, Ohio.
New York Belting & Packing Co., Passaic, N. J.
Republic Rubber Co., The, Youngstown.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Warren Handle Works Co., Cortland, Ohio.

Mallets, Wood

(See also "Sledges, Mauls or Striking Hammers")

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hellenberg, J. B., Co., Inc., The, Coldwater, Mich.
Hy-Tools, Inc., Buffalo, N. Y.
Liggnum-Vitae Woodturning Co., Inc., Jersey City, N. J.
Niagara Machine & Towel Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Peterson, F. W., Co., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Trimont Mfg. Co., Boston, Mass.
Warren Handle Works Co., Cortland, Ohio.

Mandrels, Blacksmiths' and Tinners'

American Foundry & Mfg. Co., St. Louis, Mo.
Noyes, B. B., Co., Greenfield, Mass.

Mandrels, Lathe, Expanding

Brown & Sharpe Mfg. Co., Providence, R.I.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Union Twist Drill Co., Athol, Mass.

Mandrels, Lathe, Non-Expanding

Alvord-Polk Tool Co., Millersburg, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown & Sharpe Mfg. Co., Providence.
Cleveland Twist Drill Co., The, Cleveland, Ohio.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.

Mandrels, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Pa.
Multnomah Iron Works, Portland, Ore.
Northfield Foundry & Machine Co., Northfield, Minn.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Stanley Electric Tool Co., Inc., The, New Britain, Conn. (For hole saws)
Wallace, J. D., & Co., Chicago, Ill.

Mandrels, Saw, Direct Connected Motor

Jones Superior Machine Co., Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.
Wallace, J. D,, & Co., Chicago, Ill.

Manholes, Boiler and Tank

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

Manifolds, Pipe

(See "Headers and Manifolds, Pipe")

Manifolds, Steam

Clow, James B., & Sons, Chicago, Ill.
Walworth Co., New York, N. Y.

Manometers

Foxboro Co., The, Foxboro, Mass.
Meriam Co., The, Cleveland, Ohio.
Moeller Instrument Co., Inc., Brooklyn.
Parks, Harry S., Co., Philadelphia, Pa.

Masks, Face Protecting

Chicago Eye Shield Co., Chicago, Ill.
Gross Rubber Co., Sharon, Pa.
Hygeia Respirator Co., New York, N. Y.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Weldit Acetylene Co., Detroit, Mich.
Willson Products, Inc., Reading, Pa.

Masks, Gas

Chicago Eye Shield Co., Chicago, Ill.
Hygeia Respirator Co., New York, N. Y.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Equipment Service Co., Cleveland.
Weldit Acetylene Co., Detroit, Mich.

Masks, Welders'

(See "Shields, Face, Welders'")

Materials, Filtering

(See "Filtering Materials")

Mats, Fibre

Rockwood Mfg. Co., The, Indianapolis, Ind.
Union Fibre Sales Co., Winona, Minn.

Mats, Leather

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Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Page Belting Co., Concord, N. H.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.

Mats and Matting, Rubber

Atlantic Manufacturing Co., Wilmington, Del.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cactus Mat & Patch Mfg. Co., Los Angeles.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Murray Rubber Co., Trenton, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Republic Rubber Co., The, Youngstown, O.
Standard Packing & Rubber Co., New York.
Whitehead Bros. Rubber Co., Trenton, N. J.

Mattocks

(See "Picks, Mattocks and Grub Hoes")

Mauls

(See "Sledges, Mauls or Striking Hammers," and "Hammers, Mallets and Mauls—Rawhide and Leather")

Measures, Oil

(See "Funnels and Measures")

Menders, Hose

Dixon Valve & Coupling Co., Philadelphia.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Knox Mfg. Co., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.

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Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Buckeye Brass & Mfg. Co., The, Cleveland.

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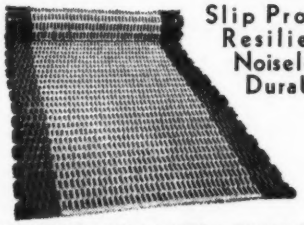

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Filer & Stowell Co., The, Milwaukee, Wis.
Finn, John, Metal Works, San Francisco.
Frictionless Metal Co., St. Louis, Mo.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Great Lakes Chemical Works, Detroit.
Hewitt Metals Corp., Detroit, Mich.
Johnson Bronze Co., New Castle, Pa.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit.
Monarch Metal Co., Chicago, Ill.
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Murphy Metals Co., Chicago, Ill.
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National Smelting & Refining Co., Chicago.
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Rochester Lead Works, Rochester, N. Y.
Rogers Metal Works, Kansas City, Mo.
Rowell Mfg. Co., Appleton, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
United American Metals Corp., Brooklyn.
Williams, E. A., & Son, Inc., Jersey City, N. J.
Wing, J. T., & Co., Detroit, Mich.

Metal, Bearing, Bronze

(See "Bars, Bronze, Cored and Solid")

Metal, Perforated Sheet

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Beckley Perforating Co., Garwood, N. J.
Buffalo Wire Works, Inc., Buffalo, N. Y.
Edwards Manufacturing Co., Inc., Cincinnati, Ohio.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Harrington & King Perforating Co., The, Chicago, Ill.
Johnston & Chapman Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Newman Bros., Inc., Norwood, Cincinnati.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wickwire Spencer Steel Co., New York.

Metal Working Machinery and Tools, Sheet

(See "Machines and Tools, Sheet Metal Working")

Meters, Air

Brown Instrument Co., The, Philadelphia.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Mason Regulator Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
United States Air Compressor Co., Cleveland, Ohio.

Meters, Air and Gas

Brown Instrument Co., The, Philadelphia.
Cutler-Hammer, Inc., Milwaukee, Wis.
Foxboro Co., The, Foxboro, Mass.
Mason Regulator Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Republic Flow Meters Co., Chicago, Ill.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.

Meters, Condensation

Brown Instrument Co., The, Philadelphia.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Republic Flow Meters Co., Chicago, Ill.

Meters, Flow, Water and Steam

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Buffalo Meter Co., Buffalo, N. Y.
Foxboro Co., The, Foxboro, Mass.
Mason Regulator Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Republic Flow Meters Co., Chicago, Ill.

Meters, Frequency

General Electric Co., Schenectady, N. Y.
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Meters, Gasoline and Oil

Bowser, S. F., and Co., Fort Wayne, Ind.
Brown Instrument Co., The, Philadelphia.
Buffalo Meter Co., Buffalo, N. Y.
Davison Combustion Co., Pittsburgh, Pa.
Foxboro Co., The, Foxboro, Mass.
Hersey Manufacturing Co., Boston, Mass.
Mars Co., The, Aurora, Ill.
Mason Regulator Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Veeder-Root, Inc., Hartford, Conn.
Worthington Pump and Machinery Corp., Harrison, N. J.

Meters, Lumber

Durant Mfg. Co., Milwaukee, Wis.
Veeder-Root, Inc., Hartford, Conn.

Meters, Recording

(See "Recorders")

Meters, Water

Brown Instrument Co., The, Philadelphia.
Buffalo Meter Co., Buffalo, N. Y.
Foxboro Co., The, Foxboro, Mass.
Gurley, W. & L. E., Troy, N. Y.
Hersey Manufacturing Co., Boston, Mass.
Meriam Co., The, Cleveland, Ohio.
Republic Flow Meters Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Micrometers

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Slocomb, J. J., Co., Providence, R. I.

Millboard, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
National Asbestos Mfg. Co., Jersey City, N. J.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

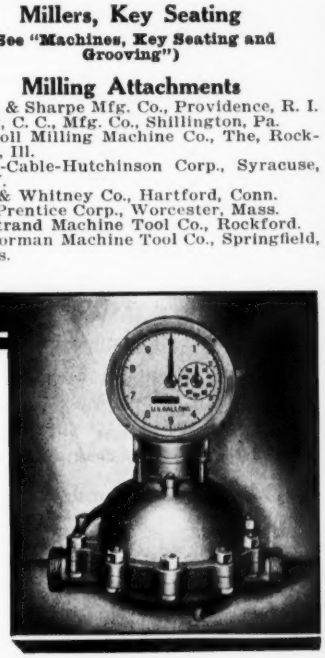
Millers, Key Seating

(See "Machines, Key Seating and Grooving")

Milling Attachments

Brown & Sharpe Mfg. Co., Providence, R. I.
Craley, C. C., Mfg. Co., Shillington, Pa.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Reed-Prentice Corp., Worcester, Mass.
Sundstrand Machine Tool Co., Rockford.
Van Norman Machine Tool Co., Springfield, Mass.

6 Reasons why you should sell



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Milling Machines
(See "Machines, Milling")

Milling Machines, Die
(See "Machines, Die Filing and Milling")

Milling Machines, Thread
(See "Machines, Thread Milling")

Mills, Boring and Turning
(See "Machines, Boring and Turning")

Mills, End

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Glenzer, J. C., Co., The, Detroit, Mich. (Utility shank)
Latrobe Tool Co., Latrobe, Pa.
Lovejoy Tool Co., Inc., Springfield, Vt.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Porter-Cable-Hutchinson Corp., Syracuse.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass. (Including double and slotting)
Whitman and Barnes, Inc., Detroit, Mich.

Mills, Hollow

Alvord-Polk Tool Co., Millersburg, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., Detroit, Mich.
Geometric Tool Co., New Haven, Conn.
Maurey Mfg. Corp., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Up-To-Date Machine Works, Inc., Chicago.
Whitman and Barnes, Inc., Detroit, Mich.

Mills, Tumbling
(See "Barrels and Mills, Tumbling")

Mineral Wool
(See "Wool, Mineral")

Mitering Machines
(See "Machines, Mitering")

Mittens
(See "Gloves and Mittens")

Mixers, Steam and Water

Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Powers Regulator Co., The, Chicago, Ill.
Vogt Brothers Mfg. Co., Louisville, Ky. (Air, water and chemical)

Mops, Cotton

Littleford Bros., Cincinnati, Ohio.
Massasoit Mfg. Co., Fall River, Mass.
Rauschenberger, John, Co., Milwaukee.
Southwestern Broom Mfg. Co., The, Evansville, Ind.
Sullivan Brush Co., Terre Haute, Ind.

Mortisers, Electric, Portable

Boice, W. B. & J. E., Toledo, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Mortising Machines
(See "Machines, Mortising")

Motors, Air Compressor

Binks Manufacturing Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Detroit Hoist & Machine Co., Detroit, Mich.
Dumore Co., The, Racine, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
H. D. B. Corporation, Chicago, Ill.
Lincoln Electric Co., The, Cleveland, Ohio.
Paasche Airbrush Co., Chicago, Ill.
United States Air Compressor Co., Cleveland, Ohio.
Wagner Electric Corp., St. Louis, Mo.

Motors and Generators, Electric

Allis, Louis, Co., The, Milwaukee, Wis.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Century Electric Co., St. Louis, Mo.
Clark, James, Jr., Electric Co., Louisville, Ky.
Diehl Mfg. Co., Elizabethport, N. J.
Dumore Co., The, Racine, Wis. (Motors only)
Electric Products Co., Cleveland, Ohio.
Emerson Electric Mfg. Co., The, St. Louis.
Fairbanks, Morse & Co., Chicago, Ill.
Forbes & Myers, Worcester, Mass.
General Electric Co., Schenectady, N. Y.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Kimble Electric Co., Chicago, Ill. (Motors for printers)
Lincoln Electric Co., The, Cleveland, Ohio.
Marathon Electric Mfg. Co., Wausau, Wis.
Master Electric Co., The, Dayton, Ohio.
Milwaukee Electric Tool Corp., Milwaukee.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Signal Electric Mfg. Co., Menominee, Mich.
Sturtevant, B. F., Co., Hyde Park, Boston.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Troy Engine & Machine Co., Troy, Pa.
U. S. Electrical Mfg. Co., Los Angeles, Calif. (Motors only)
Wagner Electric Corp., St. Louis, Mo. (Motors only)

Motors, Stationary—Gas, Gasoline, Kerosene and Oil
(See "Engines or Motors, Stationary")

Motors, Water

Central Automatic Sprinkler Co., Philadelphia, Pa.
Fitz Water Wheel Co., Hanover, Pa.

Mounts, Vise

Ridge Tool Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.

Movers, Car
(See "Car Movers")

Mowers, Lawn

Mast, Foos & Co., Springfield, Ohio.
Milbradt Mfg. Co., St. Louis, Mo. (Power)
Red Cross Mfg. Co., The, Bluffton, Ind.

Mufflers, Exhaust, Steam

Burgess Battery Co., Freeport, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Globe Machine & Stamping Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Nail Sets
(See "Sets, Nail")

Nails, Brass and Copper

Atlas Tack Corporation, Fairhaven, Mass.
Hubbard & Co., Pittsburgh, Pa. (Copper only)
Mattatuck Mfg. Co., The, Waterbury, Conn. (Brass only)
Milwaukee Tack Co., Milwaukee, Wis.
Reading Iron Co., Philadelphia, Pa.
Tower Mfg. Co., Madison, Ind. (Small)
Wickwire Spencer Steel Co., New York.

Nails, Cement Coated

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Milwaukee Tack Co., Milwaukee, Wis.
Northwestern Barb Wire Co., Sterling, Ill.
Republic Steel Corp., Youngstown, Ohio.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Cut

Atlas Tack Corp., Fairhaven, Mass.
Jones & Laughlin Steel Corp., Pittsburgh.
Milwaukee Tack Co., Milwaukee, Wis.
Reading Iron Co., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.

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DUMORE COMPANY
101 Sixteenth St. Racine, Wisc.

Nails, Dating and Marking, Railroad Tie

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Double Head

American Steel & Wire Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Foundry

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Northwestern Barb Wire Co., Sterling, Ill.
Reading Iron Co., Philadelphia, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails—Iron, Steel and Wire

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Steel and wire only)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Markwell Manufacturing Co., Inc., New York, N. Y.
Milwaukee Tack Co., Milwaukee, Wis.
Northwestern Barb Wire Co., Sterling, Ill.
Pittsburgh Steel Co., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Nails, Roofing

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Eagle-Picher Lead Co., The, Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
Lyon, Conklin & Co., Inc., Baltimore, Md.
Malleable Iron Fittings Co., Branford, Conn.
Northwestern Barb Wire Co., Sterling, Ill.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Youngstown, Ohio.
Ruberoid Co., The, New York, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Needles, Belt Lacing

Berbecker, Julius, & Sons, Inc., New York.

Needles, Industrial, Hand Sewing

Berbecker, Julius, & Sons, Inc., New York.

Netting, Wire

American Steel & Wire Co., Chicago, Ill.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Northwestern Barb Wire Co., Sterling, Ill.
Roebling's, John A., Sons Co., Trenton, N. J.
Sheffield Steel Corp., Kansas City, Mo.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Nibbling Machines

(See "Machines, Nibbling")

Nippers

Heller Brothers Co., Newark, N. J.
Lyman, Benj. K., & Co., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Sandvik Saw & Tool Corp., Minneapolis.
Schollhorn, Wm., Co., The, New Haven, Conn.

Nipples, Hose

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Allen & Billmyre Co., Inc., New York.
American Foundry & Mfg. Co., St. Louis.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Diamond Mechanical Goods Division of the B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Mueller Co., Decatur, Ill.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Brass Foundry Co., New York.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Nipples, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Chicago Nipple Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Frick-Reid Supply Corp., N. S., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Hunt, H. W., Co., Reading, Mass. (Brass and copper)
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.
New York Brass Foundry Co., New York.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.
Williams, Franklin, Inc., Orange, N. J.

Nipples, Pipe, Extra Heavy

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Chicago Nipple Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Frick-Reid Supply Corp., N. S., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Shaw-Kendall Engineering Co., The, Toledo, Ohio.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.

Nipples, Pipe, Steel and Wrought Iron

Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Byers, A. M., Co., Pittsburgh. (Wrought iron only)
Chicago Nipple Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Frick-Reid Supply Corp., N. S., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Miller Machine Works, Springs, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio. (Steel only)
Reading Iron Co., Philadelphia. (Wrought iron only)
Shaw-Kendall Engineering Co., The Toledo, Ohio.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Nipple Manufacturing Co., San Francisco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.
Wiedeman, Frank, Co., Milwaukee, Wis.

Nipples, Soldering

Acheson Manufacturing Co., Rankin, Pa. (Brass)
American Foundry & Mfg. Co., St. Louis.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa.
Midland Mfg. Co., Ft. Worth, Tex.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rickersburg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Nipples, Swaged

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Clow, James B., & Sons, Chicago, Ill.
Moak Machine & Tool Co., Port Huron, Mich.

Nipples, Tank or Locknut

Acheson Manufacturing Co., Rankin, Pa.
Buffalo Nipple & Machine Co., Inc., Buffalo.
Chicago Nipple Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Walworth Co., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Western Nipple Manufacturing Co., San Francjsco, Calif.
Wheeling Machine Products Co., Wheeling, W. Va.

Nozzles, Air

Binks Manufacturing Co., Chicago, Ill.
Cleveland Rock Drill Co., The, Cleveland.
Graton & Knight Co., Worcester, Mass.
H. D. B. Corporation, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Paasche Air Brush Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago, Ill.
United States Air Compressor Co., Cleveland, Ohio.

Nozzles, Boiler

Bate Boiler Efficiency Co., Conshohocken, Pa.
Farquhar, A. B., Co., Ltd., York, Pa.
Illinois-Scully Steel Warehouse Co., Chicago, Ill.
Milwaukee Steam Appliance Co., West Allis, Wis.
Ryerson, Joseph T., & Son, Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.

Nozzles, Hose

Acheson Manufacturing Co., Rankin, Pa. (Garden hose)
Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Campbell-Hausfeld Co., The, Harrison, O.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Haydenville Co., The, Haydenville, Mass.
Home Rubber Co., Trenton, N. J.
Independent Pneumatic Tool Co., Chicago.
Knox Mfg. Co., Philadelphia, Pa.
M & H Valve & Fittings Co., Anniston, Ala.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa. (Gasoline self-closing)
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Messmer Brass Co., St. Louis, Mo.
Morrison Bros., Dubuque, Iowa.
Mulconroy Co., Inc., Philadelphia, Pa.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Belting & Packing Co., Passaic, N. J.
New York Brass Foundry Co., New York.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek.
Thermoid Rubber Co., Trenton, N. J.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Nozzles, Hose, Controlling

Allen, W. D., Mfg. Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Crane Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Morrison Bros., Dubuque, Iowa.
New York Brass Foundry Co., New York.
Republic Rubber Co., The, Youngstown, O.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Nozzles, Hydrant

American Foundry & Mfg. Co., St. Louis.
Clow, James B., Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Haydenville Co., The, Haydenville, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
M & H Valve & Fittings Co., Anniston, Ala.
New York Brass Foundry Co., New York.

Nozzles, Hydraulic Mining

Ives, W. A., Mfg. Co., Meriden, Conn.
Taylor Forge & Pipe Works, Chicago, Ill.

Nozzles, and Sprinklers, Irrigation

American Foundry & Mfg. Co., St. Louis.
Buffalo Forge Co., Buffalo, N. Y.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Spraco, Inc., Somerville, Mass.

Nozzles, Ladle

Goodrich, B. F., Co., Akron, Ohio.

UMI

Nozzles, Rubber

Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., The, Akron, O.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Whitehead Bros. Rubber Co., Trenton, N. J.

Nozzles, Sand Blast

Dallett Co., The, Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Marion Malleable Iron Works, Marion, Ind.
Mott Sand Blast Mfg. Co., Inc., Chicago.
Paasche Airbrush Co., Chicago, Ill.
Ruemelin Mfg. Co., Milwaukee, Wis.

Nozzles, Spray

Aeroil Burner Co., Inc., West New York, N. J.
Allen, W. D., Mfg. Co., Chicago, Ill.
Anderson Bros. Mfg. Co., Rockford, Ill.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Campbell-Hausfeld Co., The, Harrison, O.
Chain Belt Co., Milwaukee, Wis.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
H. D. B. Corporation, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Messmer Brass Co., St. Louis, Mo.
Metal Specialties Mfg. Co., Chicago, Ill.
Miller Mfg. Co., Cedar Falls, Iowa. (Including oil spray)
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
New York Belting & Packing Co., Passaic, N. J.
Paasche Airbrush Co., Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Simplex Spray Equipment Co., Chicago, Ill.
Spraco, Inc., Somerville, Mass.
Standard Packing & Rubber Co., New York.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Nozzles, Turret

Elkhart Brass Mfg. Co., Elkhart, Ind.

Nut and Screw Blanks

(See "Blanks, Nut and Screw")

Nut Setters

(See "Setters, Nut")

Nuts, Acorn

Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill. (Brass)
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Parker Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.

Nuts, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
American Screw Co., Providence, R. I.
Ampco Metal, Inc., Milwaukee, Wis.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw & Bolt Corp.), Cleveland, Ohio.
Continental Wood Screw Co., New Bedford, Mass.
Detroit Nut Co., Inc., Detroit, Mich.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Harris, Arthur, & Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Imperial Brass Manufacturing Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
National Screw & Mfg. Co., The, Cleveland.
New England Screw Co., Boston, Mass.
Ottemiller, Wm. H., Co., Inc., The, New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh. Pa.
Republic Steel Corp., Youngstown, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Torrington Mfg. Co., The, Torrington, Conn.
U. S. Indestructible Gasket Co., Brooklyn.

Nuts, Cap

Chicago Screw Co., Chicago, Ill.
Harper, H. M., Co., Chicago, Ill.
Keystone Mfg. Co., Buffalo, N. Y.
Lamson & Sessions Co., The, Cleveland.
Mid-West Screw Products Co., St. Louis.
Pheoll Mfg. Co., Chicago, Ill.
Red Devil Manufacturing Co., Bellwood, Ill.

Nuts, Case Hardened

Acme Machine Products Co., Muncie, Ind.
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Wood Screw Co., New Bedford, Mass.
Detroit Nut Co., Inc., Detroit, Mich.
Haskell, Wm., H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Oliver Iron & Steel Corp., Pittsburgh.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Standard Shop Equipment Co., Philadelphia, Pa.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Nuts, Castellated or Slotted

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland.
Milton Manufacturing Co., The, Milton, Pa.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Stevens, Walden, Inc., Worcester, Mass.
Superior Screw & Bolt Co., The, Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Nuts, Check or Jam

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland.
Milton Manufacturing Co., The, Milton, Pa.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Superior Screw & Bolt Co., The, Cleveland, Ohio.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Nuts, Cold Punched

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Continental Wood Screw Co., New Bedford, Mass.
Elco Tool & Screw Co., Rockford, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester. N. Y.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Co., The, Cleveland.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Wasmer Bolt & Nut Co., The, Cleveland.

Nuts, Finished and Semi-Finished

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.

MACHINE SCREW NUTS
Steel and Brass

Square Hexagon Square

Elco Machine Screw Nuts are carefully tapped and threaded to National Screw Thread Standards, which insures a tight assembly and reduces loosening from vibration to a minimum. The completee range of sizes in Hexagon and Square Nuts is stocked in both steel and brass for prompt shipment.

ELCO TOOL & SCREW CORP.
1902 Broadway Rockford, Ill.

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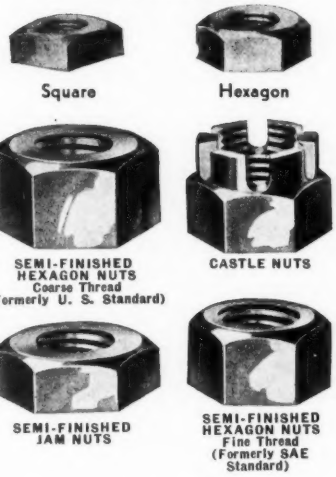

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Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Detroit Nut Co., Inc., Detroit, Mich.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Mid-West Screw Products Co., St. Louis.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Theoll Mfg. Co., Chicago, Ill.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Standard Shop Equipment Co., Philadelphia, Pa.
Superior Screw & Bolt Co., The, Cleveland, Ohio. (Semi-finished only)
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Nuts, Hot Pressed

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blanman, E., Co., The, East Chicago, Ind.
Buffalo Bolt Co., North Tonawanda, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Heiz & Heiz, Inc., Brooklyn, N. Y.
International Nickel Co., Inc., The, New York, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rockford Bolt & Steel Co., Rockford, Ill.
Rockford Screw Products Co., Rockford, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Nuts, Lock

(See "Locknuts")

Nuts, Thumb and Wing

Atlas Bolt & Screw Co., The, Cleveland, O.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Eberhard Mfg. Co., Cleveland, Ohio.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill. (Brass)
International Nickel Co., Inc., The, New York, N. Y.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester.
Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Nuts, Waste

Acheson Manufacturing Co., Rankin, Pa.
National Screw & Mfg. Co., The, Cleveland.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Oakum

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hooven & Allison Co., The, Xenia, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Rauschenberger, John, Co., Milwaukee.
Upson-Walton Co., The, Cleveland, Ohio.

Oil, Core

(See "Compounds and Oils, Core")

Oil — Cutting, Drilling, Threading, Etc.

(See "Compounds and Oils")

Oil Eliminators

Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Oil Extractors

(See "Extractors, Grease and Oil")

Oil, Linseed

Glidden Co., The, Cleveland, Ohio.
National Lead Co., New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Stuart, D. A., Oil Co., Chicago, Ill.
Whitlam, J. C., Mfg. Co., Wadsworth, O.

Oil and Grease, Lubricating

Alemite Corp., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y.
Bay State Stamping Co., Worcester, Mass.
Chicago Pneumatic Tool Co., New York.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City.
Duryea Manufacturing Co., Bayonne, N. J.
Economy Oil Co., Chicago, Ill.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y.
Franklin Oil & Gas Co., The, Bedford, O.
Harris, A. W., Oil Co., Providence, R. I.
Keystone Lubricating Co., Philadelphia.
Lubriplate Corp., New York, N. Y.
Master Lubricants Co., Philadelphia, Pa.
Magie Bros., Chicago, Ill.
N. A. C. Corporation, The, Camden, N. J.
Patterson Lubricating Co., Boston, Mass.
Philadelphia Grease Mfg. Co., The, Philadelphia, Pa.
Royersford Foundry & Machine Co., Inc., Royersford, Pa. (Bearing grease)
Standard Oil Co., of New York, The, New York, N. Y.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Stuart, D. A., Oil Co., Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
Wilbur & Williams Co., The, Boston.

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New process makes Parker-Kalon Cold-forged Wing Nuts and Thumb Screws better. Complete range of sizes. Get prices, samples from Parker-Kalon Corporation, 192 Varick St., New York, N. Y.

PARKER-KALON

Oil, Neat's-Foot

Chicago Belting Co., Chicago, Ill.
Harris, A. W., Oil Co., Providence, R. I.
Stuart, D. A., Oil Co., Chicago, Ill.

Oil, Penetrating, Graphite

Alemite Corp., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y.
Case, J. R., Manufacturing Co., Inc., Jonesboro, Ark.
Cook's, Adam, Sons, Inc., Linden, N. J.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Franklin Oil & Gas Co., The, Bedford, O.
Keystone Lubricating Co., Philadelphia.
Master Lubricants Co., Philadelphia, Pa.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Standard Oil Co. of New York, The, New York, N. Y.
Stuart, D. A., Oil Co., Chicago, Ill.
Superior Flake Graphite Co., Chicago, Ill.

Oil and Gas Well Supplies, Rubber

Consolidated Brass Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Garlock Packing Co., The, Palmyra, N. Y.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Jackson, Byron, Co., Los Angeles, Calif.
Mechanical Rubber Co., The, Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Roberts, Geo. J., Co., The, Dayton, Ohio.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.

Oil Stones

(See "Stones, Oil")

Oil Testing Instruments

(See "Instruments, Testing, Oil")

Oiler Sets

(See "Sets, Oiler")

Oilers

(See also "Cups", "Lubricators" and "Pumps")

Oilers, Bottle

Lunkenheimer Co., The, Cincinnati.

Oilers, Crank Pin and Cross Head

American Injector Co., Detroit, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

Oilers, Hand, Pump Type

American Injector Co., Detroit, Mich.
Anthes Force Oiler Co., Fort Madison, Ia.
Cannon Oiler Co., Keithsburg, Ill.
Eagle Manufacturing Co., Wellsburg, W. Va.

Imperial Brass Manufacturing Co., Chicago, Ill.
Lidseen, Gustave, Inc., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Miller Mfg. Co., Cedar Falls, Iowa.
Plews Oiler Co., Minneapolis, Minn.

Oilers, Hand, Spring Bottom

Atlas-Ansonia Co., New Haven, Conn.
Bay State Stamping Co., Worcester, Mass.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Eagle Manufacturing Co., Wellsburg, W. Va.
Essex Brass Corp., Detroit, Mich.
Gem Manufacturing Co., Pittsburgh, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lidseen, Gustave, Inc., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Perkins Marine Lamp Corp., Brooklyn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Manufacturing Co., Oakmont, Pa.

Oilers, Railroad

Alemite Corp., Chicago, Ill.
Anthes Force Oiler Co., Fort Madison, Ia.
Bay State Stamping Co., Worcester, Mass.
Cannon Oiler Co., Keithsburg, Ill.
Eagle Manufacturing Co., Wellsburg, W. Va.
Gem Manufacturing Co., Pittsburgh, Pa.
Gits Bros. Mfg. Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Lidseen, Gustave, Inc., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Miller Mfg. Co., Cedar Falls, Iowa.
Victor Lubricator Co., Chicago, Ill.
Walters Manufacturing Co., Oakmont, Pa.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Oilers, Sight Feed, Multiple

Alemite Corp., Chicago, Ill.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Consolidated Brass Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Gits Bros. Mfg. Co., Chicago, Ill.
Lonergan, J. E., Co., Philadelphia, Pa.

Leading Jobbers Everywhere Carry

"THE EAGLE LINE"

Every item in the Eagle line of Oilers and Oil containers is designed to do the best possible job, after a complete and exhaustive study of just what industry needs. A few of the outstanding items are illustrated and briefly described here.

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IMPROVED HYDRAULIC PUMP OILERS

Copper plated finish. Detachable interchangeable, welded steel spouts, brass couplings with cut threads. Hydraulic type pump with no pump leathers. Will pump any oil that flows. ¾ pint, 1 pint and 1 quart sizes with 6", 9" and 15" spouts, both upright and 50° angle.

WELDED STEEL BENCH OILERS

For railroads, mills, mines, foundries, manufacturing plants and other industries where a durable oiler is required. One piece, seamless steel, highly polished, solid brass bushing and interchangeable spouts. Straight or bent—4 to 12 inches long. Capacity 1/3 to 1 pint.

2 IN 1 EMERGENCY FILLER CANS

For emergency or regular filling. For storing or transferring. No funnel necessary when filling. Detachable flexible spout and handy grip cap. Seamless welded steel construction. 2½ gallon and 5 gallon capacity.

HANDY GRIP GALVANIZED CANS

For gasoline, kerosene or other liquids. 2½" wide mouth filler opening on *all sizes*. Triple locked body seams. Guaranteed leakproof. Made in 1, 2 and 5 gallon sizes. Also faucet cans in 5 gallon size.

Oilers, Oil Containers, Torches, Tallow Pots, etc., of every description manufactured by—

EAGLE MANUFACTURING CO.
WELLSBURG, W. VA.

Wall "Superior" Welded Steel Oilers

Manufactured from cold rolled strip steel, with welded bottoms, and cut-thread brass collars riveted to the body of the oilers.

Spouts are welded and riveted into solid brass machined bushings.

SPECIFICATIONS

Cat. No.	Cap. Pt.	Body Diam. Ins.	*Spout Length Ins.	Shipping Wt. per Doz. lb.	List Price Doz.
2204	⅓	3–⅜	4	3–¾	$5.00
2206	⅓	3–⅜	6	4	5.50
2209	⅓	3–⅜	9	4–½	6.00
3304	½	3–¾	4	4–¾	6.00
3306	½	3–¾	6	5	6.50
3309	½	3–¾	9	5–½	7.00
5504	1	4–⅛	4	6	8.00
5506	1	4–⅛	6	6–¼	8,50
5509	1	4–⅛	9	6–¾	9.00
5512	1	4–⅛	12	7	9.00

*6-in. spout and longer are furnished bent, unless otherwise specified.

P. Wall Mfg. Supply Co.,
3126 Preble Ave., PITTSBURGH, PA.

Lunkenheimer Co., The, Cincinnati, Ohio.
McCord Radiator Mfg. Co., Detroit, Mich.
Manzel Brothers Co., Buffalo, N. Y.
Nugent, Wm. W., & Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Victor Lubricator Co., Chicago, Ill.

Openers, Box or Crate

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Sargent & Co., New Haven, Conn.

Openers, Door

(See "Door Openers and Closers")

Ovens, Core, Enameling and Japanning

Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Roberts Portable Oven Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.

Ovens, Electric, for Industrial Uses

Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
Diamond Iron Works, Inc., Minneapolis.
General Electric Co., Schenectady, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Trent, Harold E., Co., Philadelphia, Pa.

Overhead Track Systems

(See "Trolley, Tracks and Tramways, Overhead")

Overshoes, Asbestos

Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Holcomb Safety Garment Co., Chicago.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Oxygen, for Industrial Uses

Air Reduction Sales Co., New York, N. Y.
Linde Air Products, Inc., The, New York.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pittsburgh, Pa.

Packers, Oil Well

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Garlock Packing Co., The, Palmyra, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Ammonia

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Chesterton, A. W., Co., Boston, Mass.
Crandall Packing Co., Palmyra, N. Y.
Crane Packing Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Elkhart Rubber Works, Elkhart, Ind.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Federal Metallic Packing Co., Wakefield, Mass.
Felt Products Mfg. Co., Chicago, Ill.
France Packing Co., Tacony, Philadelphia.
Garlock Packing Co., Palmyra, N. Y.
General Asbestos & Rubber Div. of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Huhn Manufacturing Co., Bronx, N. Y.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Johns-Manville Sales Corp., New York.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Montgomery-Stewart Co., Philadelphia, Pa.
New York Belting & Packing Co., Passaic.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Philadelphia.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Asbestos—Rope, Twist and Wick

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Advance Packing & Supply Co., Chicago.
Asbestos Mfg. Co., Huntington, Ind.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Chesterton, A. W., Co., Boston, Mass.
Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Goodyear Tire & Rubber Co., Inc., Akron, O.
Greene, Tweed & Co., New York, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Johns-Manville Sales Corp., New York.
Keasbey & Mattison Co., Ambler, Pa.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Montgomery-Stewart Co., Philadelphia, Pa.
New York Belting & Packing Co., Passaic.
Ohio Rubber Co., The, Cleveland, Ohio.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

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Asbestos Mfg. Co., Huntington, Ind.
Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Carey, Philip, Co., The, Cincinnati, Ohio.
Chesterton, A. W., Co., Boston, Mass.
Crandall Packing Co., Palmyra, N. Y.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
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Felt Products Mfg. Co., Chicago, Ill.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron.
Hewitt Rubber Corp., Buffalo, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Imperial Belting Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Johns-Manville Sales Corp., New York.
Keasbey & Mattison Co., Ambler, Pa.
Klingerit, Inc., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Miley, L. J., Co., Inc., Chicago, Ill.
Montgomery-Stewart Co., Philadelphia, Pa.
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Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos, Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
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Packing, Cork

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Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.

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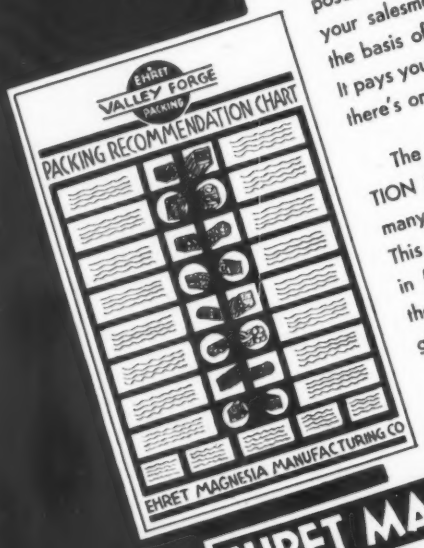

The VALLEY FORGE PACKING RECOMMENDATION CHART shown at the left is but one of the many sales helps Ehret offers its wholesale outlets. This Chart is 14 x 22 inches in size and is printed in four colors, clearly showing the construction of those packings which are most generally used, and giving specific service recommendations.

Write today for further details of the VALLEY FORGE Packing merchandising plan.

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Chesterton, A. W., Co., Boston, Mass.
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Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Rhopac Products Corp., Chicago, Ill.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.

Packing, Cotton Wicking

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Darcoid Co., Inc., The, New York, N. Y.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Massasoit Mfg. Co., Fall River, Mass.
Montgomery-Stewart Co., Philadelphia.
New York Belting & Packing Co., Passaic, N. J.
Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Walters Manufacturing Co., Oakmont, Pa.
Watt's, John M., Sons, Philadelphia, Pa.
Western Packing & Supply Co., Chicago.

Packing, Diaphragm

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Endura Mfg. Corp., Quakertown, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rhopac Products Corp., Chicago, Ill.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Vellumoid Co., The, Worcester, Mass.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Packing, Duck, Hydraulic—for Elevators, Pumps, Etc.

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Coleman, Allan J., Chicago, Ill.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Endura Mfg. Corp., Quakertown, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Gould Packing Co., East Cambridge, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Montgomery-Stewart Co., Philadelphia, Pa.
New York Belting & Packing Co., Passaic.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Western Packing & Supply Co., Chicago.

Packing, Felt

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Booth Felt Co., Inc., Brooklyn, N. Y.
Chesterton, A. W., Co., Boston, Mass.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Standard Packing & Rubber Co., New York.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.

Packing, Fibre and Fibrous

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Endura Mfg. Corp., Quakertown, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Excel Asbestos Mfg. Co., Garwood, N. J.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Greene, Tweed & Co., New York, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Johns-Manville Sales Corp., New York.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
Minnesota Mining & Mfg. Co., St. Paul.
Montgomery-Stewart Co., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Union Fibre Sales Co., Winona, Minn.
Vellumoid Co., The, Worcester, Mass.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Western Packing & Supply Co., Chicago.

Packing, Flax

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Fitler, Edwin H., Co., The, Philadelphia.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Greene, Tweed & Co., New York, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Johns-Manville Sales Corp., New York.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Montgomery-Stewart Co., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Union Fibre Sales Co., Winona, Minn.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N.Y.
Western Packing & Supply Co., Chicago.

Packing, Hemp

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co., and Braiding & Packing Works of America, Inc., Brooklyn.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Fitler, Edwin H., Co., The, Philadelphia.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Greene, Tweed & Co., New York, N. Y.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Hooven & Allison Co., The, Xenia, Ohio.
Janos Asbestos Co., New York, N. Y.
Johns-Manville Sales Corp., New York.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Montgomery-Stewart Co., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Plymouth Cordage Co., North Plymouth, Mass.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
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Packing, Hydraulic

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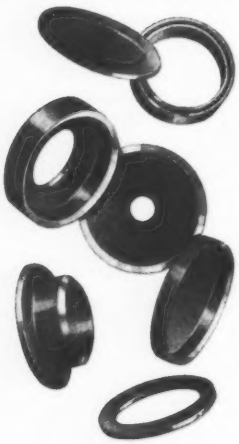

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Dudgeon, Richard, Inc., New York, N. Y.
Endura Mfg. Corp., Quakertown, Pa.
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Excel Asbestos Mfg. Co., Garwood, N. J.
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Federal Metallic Packing Co., Wakefield, Mass.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
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Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lourie Manufacturing Co., Chicago, Ill.
Lubron Co., The, Everett, Mass.
Mabbs Hydraulic Packing Co., Chicago.
Manhattan Rubber Mfg. Co. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Martell Packings Co., The, Elyria, Ohio.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
Montgomery-Stewart Co., Philadelphia.
New York Belting & Packing Co., Passaic, N. J.
Philadelphia Belting Co., Philadelphia.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rahmann, Geo., & Co., New York, N. Y.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Standard Packing & Rubber Co., New York, N. Y.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Watt's John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Packing, Jute

Advance Packing & Supply Co., Chicago.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka Packing Co. and Braiding & Packing Works of America, Inc., Brooklyn.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Home Rubber Co., Trenton, N. J.
Hooven & Allison Co., The, Xenia, Ohio.
Janos Asbestos Co., New York, N. Y.
Johns-Manville Sales Corp., New York.
Klingerit, Inc., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Inc., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
Montgomery-Stewart Co., Philadelphia.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Rauschenberger, John, Co., Milwaukee.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Watson-Stillman Co., The, Roselle, N. J.
Watt's, John M., Sons, Philadelphia, Pa.
Webb, J. A., Belting Co., Inc., Buffalo.
Western Packing & Supply Co., Chicago.

Packing, Leather

Advance Packing & Supply Co., Chicago.
Alexander Brothers, Inc., Philadelphia, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Crandall Packing Co., Palmyra, N. Y.
Darcoid Co., Inc., The, New York, N. Y.
Detroit Oak Belting Co., Detroit, Mich.
Dudgeon, Richard, Inc., New York, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. (Air brake and flange)
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Mabbs Hydraulic Packing Co., Chicago, Ill.
Marsh, Chas. W., Co., Muskegon, Mich.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
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Packing, Rubber

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(See Classification by Material)

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(See "Packing, Metallic")

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(See Classification by Material)

Padlocks

Eagle Lock Co., Terryville, Conn.
Fraim, E. T., Lock Co., Lancaster, Pa.
Sargent & Co., New Haven, Conn.
Yale & Towne Mfg. Co., The, Stamford, Conn.

Pads, Lubricating, Felt

Booth Felt Co., Inc., Brooklyn, N. Y.
Breeze Corporation, Inc., Newark, N. J.
Gross Rubber Co., Sharon, Pa.

Pails, Cement

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Geuder, Paeschke & Frey Co., Milwaukee.
Philadelphia Belting Co., Philadelphia.
Rochester Can Co., Rochester, N. Y.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Fibre

Continental-Diamond Fibre Co., Newark, Del.
Cordley & Hayes, New York, N. Y.
Geuder, Paeschke & Frey Co., Milwaukee.

Pails, Fire

American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Tar, Roofers'

Aeroil Burner Co., Inc., West New York, N. J.
Littleford Bros., Cincinnati, Ohio.
Rochester Can Co., Rochester, N. Y.

Pails, Washing, Steel

Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Water

Dover Stamping & Mfg. Co., Cambridge, Mass.
Geuder, Paeschke & Frey Co., Milwaukee.
Rochester Can Co., Rochester, N. Y.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Pails, Wood

Leard, William, Co., Inc., The, New Brighton, Pa.

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Paint, Aluminum

Aluminum Company of America, Pittsburgh, Pa.
Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City.
DuPont DeNemours, B. I., & Co., Wilmington, Del. (Finishes Division)
Goheen Corporation of New Jersey, Newark, N. J.
Koppers Products Co., Pittsburgh.
Lucas, John, & Co., Inc., Philadelphia, Pa.
Pittsburgh Plate Glass Co., (Paint and Varnish Division), Milwaukee, Wis.
Sherwin-Williams Co., The, Cleveland, O.
Vortex Manufacturing Co., The, Cleveland.

Paint, Graphite and Roofing

American Asphalt Paint Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
DuPont DeNemours, B. I., & Co., Wilmington, Del. (Finishes Division).
Glidden Co., The, Cleveland, Ohio.
Goheen Corp. of New Jersey, Newark, N. J.
Horn, A. C., Co., Long Island City, N. Y.
Menaugh & Co., Chicago, Ill.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Pittsburgh Plate Glass Co., (Paint and Varnish Division), Milwaukee, Wis.
Rinald, H., Co., W. Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Superior Flake Graphite Co., Chicago, Ill.
Tnemec Inc., Kansas City, Mo.
U. S. Gutta Percha Paint Co., Providence, R. I.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York, N. Y.

Paint, Hot Surface

Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carey, Philip Co., The, Lockland, Cincinnati, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Ensign Products Co., Cleveland, Ohio.
General Electric Co., (Merchandise Dept.) Bridgeport, Conn.
Goheen Corp., of New Jersey, Newark, N. J.
Green, A. P., Fire Brick Co., Mexico, Mo.
Horn, A. C., Co., Long Island City, N. Y.
Liquilox Co., Ltd., Los Angeles, Calif.
Menaugh & Co., Chicago, Ill.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Quigley Co., Inc., New York, N. Y.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence, R. I.
Wills Products Co., The, New York, N. Y.

Paint for Iron Work, Boilers, Boiler Settings, Machinery, Etc.

Aluminum Industries, Inc., Cincinnati, O.
American Asphalt Paint Co., Chicago, Ill.
Baker Paint & Varnish Co., Jersey City, N. J.
Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Carter Paint Company, Liberty, Indiana.
Chadwick & Trefethen, Portsmouth, N. H.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
DuPont DeNemours, B. I., & Co., Wilmington, Del. (Finishes Division)
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Goodrich, B. F., Co., The, Akron, Ohio.
Horn, A. C., Co., Long Island City, N. Y.
Koppers Products Co., Pittsburgh.
Liquilox Co., Ltd., Los Angeles, Calif.
Menaugh & Co., Chicago, Ill.
National Lead Co., New York, N. Y.
National Manufacturing Corp., Tonawanda, N. Y.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Pittsburgh Plate Glass Co. (Paint and Varnish Division), Milwaukee, Wis.
Quigley Co., Inc., New York, N. Y.
Rinald, H. Co., W. Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Steelcote Mfg. Co., St. Louis, Mo.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence, R. I.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wilbur & Williams Co., The, Boston.
Wills Products Co., The, New York, N. Y.

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Acme Asbestos Covering & Flooring Co., Chicago, Ill.
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Carter Paint Company, Liberty, Indiana.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Detroit Graphite Co., Detroit, Mich.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Goheen Corp. of New Jersey, Newark, N. J.
Horn, A. C., Co., Long Island City, N. Y.
Menaugh & Co., Chicago, Ill.
Medusa Portland Cement Co., Cleveland, O.
Otley Paint Mfg. Co., Chicago, Ill.
Paraffine Companies, Inc., The, San Francisco, Calif.
Pittsburgh Plate Glass Co. (Paint and Varnish Division), Milwaukee, Wis.
Quigley Co., Inc., New York, N. Y.
Reardon Co., The, St. Louis, Mo.
Rinald H. Co., W. Philadelphia, Pa.
Ruberoid Co., The, New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Technical Products Co., Pittsburgh, Pa.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence, R. I.
Vortex Manufacturing Co., The, Cleveland.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
Wills Products Co., The, New York.

Paint Spraying Guns

(See "Guns, Paint Spraying")

Paint, Waterproofing

(See "Compounds and Paints, Waterproofing")

Painting Machines and Equipment

(See "Machines and Equipment, Painting and Whitewashing")

Pans, Acid and Annealing

Littleford Bros., Cincinnati, Ohio.
Northwest Lead Co., Seattle, Wash. (Acid only)

Pans, Drip

Angle Steel Stool Co., Plainwell, Mich.
Burt Manufacturing Co., The, Akron, O.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Filer & Stowell Co., The, Milwaukee, Wis.
Littleford Bros., Cincinnati, Ohio.
Rochester Can Co., Rochester, N. Y.
Walters Manufacturing Co., Oakmont, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.

Pans, Dust, Factory

Angle Steel Stool Co., Plainwell, Mich.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Rochester Can Co., Rochester, N. Y.

Pans, Lathe

Angle Steel Stool Co., Plainwell, Mich.
Littleford Bros., Cincinnati, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pollard Bros. Mfg. Co., Chicago, Ill.
Walters Manufacturing Co., Oakmont, Pa.

Pans, Shop and Assembly

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Berger Manufacturing Co., The, (Division of Republic Steel Corp.), Canton, Ohio.
Geuder Paeschke & Frey Co., Milwaukee.
Littleford Bros., Cincinnati, Ohio.
Stevens, Walden, Inc., Worcester, Mass.

Paper, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Central Asbestos & Magnesia Co., Chicago.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
National Asbestos Mfg. Co., Jersey City, N. J.
Ruberoid Co., The, New York, N. Y.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Paper, Roofing

Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Ruberoid Co., The, New York, N. Y.

Paper and Cloth—Sand, Emery, Garnet and Flint

Armour Sand Paper Works, Chicago, Ill.
Baeder Adamson Co., Philadelphia, Pa.
Barton, H. H., & Son Co., Troy, N. Y.
Behr-Manning Corporation, Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Cleveland Container Co., The, Cleveland.
Clover Mfg. Co., Norwalk, Conn.
Grobet File Corp. of America, New York.
Mid-West Abrasive Co., Detroit, Mich.
Wausau Abrasives Co., St. Paul, Minn.

Partitions, Factory, Wire

Buffalo Wire Works Co., Inc., Buffalo.
Cyclone Fence Co., Waukegan, Ill.
Hauserman, E. F., Co., The, Cleveland, O.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.

Partitions, Steel

Cyclone Fence Co., Waukegan, Ill.
Hauserman, E. F., Co., The, Cleveland, O. (Movable)
Lupton's, David, Sons Co., Philadelphia.

Paste, Pipe Covering

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Armstrong Cork & Insulation & Co., Industrial Division, Lancaster, Pa.
Johns-Manville Sales Corp., New York.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.

Paste, Soldering

American Solder & Flux Co., Philadelphia.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Burnley Battery & Mfg. Co., North East, Pa.
Dunton, M. W., Co., The, Providence, R. I.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
McGill Mfg. Co., Valparaiso, Ind.
Prier Brass Mfg. Co., Kansas City, Mo.

Pattern Letters and Figures

(See "Letters and Figures, Pattern")

Pegs, Belt Lacing

(See "Pins or Pegs, Belt Lacing")

Pickers, Loom

Chicago Rawhide Mfg. Co., The, Chicago.
Gates Electric Co., Schenectady, N. Y.
General Electric Co., Schenectady, N. Y.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
Schieren, Chas. A., Co., New York, N. Y.

Picks, Mattocks and Grub Hoes

Ames, Baldwin, Wyoming Shovel Co., North Easton, Mass.
Collins Co., The, Collinsville, Conn.
Hubbard & Co., Pittsburgh, Pa.
Kelly Axe & Tool Co., Charleston, W. Va.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Littleford Bros., Cincinnati, Ohio.

Picks, Mill and Boiler

Leetonia Tool Co., The, Leetonia, Ohio.
Onesti Bros., Highland Park, Ill.

Pike Poles

(See "Poles, Pike")

Pilers

(See "Elevators, Pilers or Stackers, Portable")

Pillow Blocks

(See "Blocks, Pillow")

Pincers, Blacksmiths' and Carpenters'

Crescent Tool Co., Jamestown, N. Y.
Heller Brothers Co., Newark, N. J.
Peck, Stow & Wilcox Co., Southington, Conn.
Sargent & Co., New Haven, Conn.

Pinions

(See "Gears and Pinions")

Pins or Pegs, Belt Lacing

Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit Belt Lacer Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.
Tilghman, T. H., & Sons, Salisbury, Md.
Western Rawhide & Belting Co., Milwaukee, Wis.

Pins, Bending, Plumbers'

Bernz, Otto, Co., Inc., Rochester, N. Y.

Pins, Cotter

(See "Cotter Pins and Spring Keys")

Pins or Plugs, Drift

Bernz, Otto, Co., Inc., Rochester, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Pins, Taper

Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Eaton Manufacturing Co. (Reliance Spring Washer Division), Massillon, O.
Dallett Co., The, Philadelphia, Pa.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Leard, William, Co., Inc., The, New Brighton, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Pratt & Whitney Co., Hartford, Conn.
Rochester Machine Screw Co., Rochester, N. Y.
Standard Steel Specialty Co., Beaver Falls, Pa.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Western Automatic Machine Screw Co., Elyria, Ohio.
Worcester Taper Pin Co., Worcester, Mass.

Pins, Turn, Plumbers'

Bernz, Otto, Co., Inc., Rochester, N. Y.

Pipe Bending Machines

(See "Machines, Bending, Pipe")

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Pipe Bends and Coils

(See "Bends and Coils, Pipe")

Pipe, Black and Galvanized, Steel—Steam, Water and Gas

Allegheny Steel Co., Brackenridge, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Central Tube Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.
Fretz-Moon Tube Co., Inc., East Butler, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Keating, E. F., Co., New York, N. Y.
Lyon, Conklin & Co., Inc., Baltimore, Md.
National Tube Co., Pittsburgh, Pa.
Naylor Pipe Co., Chicago, Ill.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Youngstown, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh.
Walworth Co., New York, N. Y.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Black and Galvanized, Wrought Iron—Steam, Water and Gas

Byers, A. M., Co., Pittsburgh, Pa.
Crane Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Midland Tube & Pipe Co., Bordentown, N. J.
Mueller Brass Co., Port Huron, Mich.
Naylor Pipe Co., Chicago, Ill.
Pancoast, Henry B., Co., Philadelphia.
South Chester Tube Co., Chester, Pa.
Walworth Co., New York, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pipe, Brass and Copper

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Crane Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Co., Decatur, Ill.
New York Brass Foundry Co., New York.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Roberts Brass Co., Milwaukee, Wis.
Roessing Manufacturing Co., Pittsburgh.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Walworth Co., New York, N. Y.
Wolverine Tube Co., Detroit, Mich.

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Pipe, Cast Iron, Flanged

Clow, James B., & Sons, Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Walworth Co., New York, N. Y.

Pipe, Cast Iron, Flexible Joint

Barco Manufacturing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Pacific States Cast Iron Pipe Co., Provo, Utah.

Pipe, Cast Iron, Water and Gas

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Medina Iron & Brass Co., Medina, N. Y.
Pacific States Cast Iron Pipe Co., Provo, Utah.
Walworth Co., New York, N. Y.

Pipe, Conductor

(See "Down Spouts or Conductor Pipe")

Pipe, Copper

(See "Pipe, Brass and Copper" and "Tubing—Brass, Bronze and Copper")

Pipe, Covering

(See "Covering, Pipe and Boiler")

Pipe Cutting and Threading Machines and Tools

(See "Machines, Cutting and Threading, Pipe," "Stocks and Dies," and "Dies, Pipe Threading," "Cutters, Pipe" and "Cutters, Lead Pipe")

Pipe, Drive

Bethlehem Steel Co., Bethlehem, Pa.
Hitner's, Henry A., Sons Co., Philadelphia.
Jones & Laughlin Steel Corp., Pittsburgh.
National Tube Co., Pittsburgh, Pa.
Reading Iron Co., Philadelphia, Pa.
Republic Steel Corp., Youngstown, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh, Pa.
Walworth Co., New York, N. Y.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Fabricated

Bartlett Hayward Co., The, Baltimore, Md.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Continental-Diamond Fibre Co., Newark, Del.
Crane Co., Chicago, Ill.
Grinnell Co., Inc., Providence, R. I.
Keating, E. F., Co., New York, N. Y.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
Littleford Bros., Cincinnati, Ohio.
Midland Tube & Pipe Co., Bordentown, N. J.
Mitchell, W. K., & Co., Inc., Philadelphia.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Western Nipple Manufacturing Co., San Francisco, Calif.

Pipe, Fibre

(See "Fibre, Hard")

Pipe Grooving Tools

(See "Tools, Grooving, Pipe")

Pipe Hangers

(See "Hangers, Pipe")

Pipe, Hard Rubber

Continental-Diamond Fibre Co., Newark, Del.
Goodall Rubber Co., Philadelphia, Pa.
Standard Packing & Rubber Co., New York, N. Y.

Pipe, Hydraulic

Dudgeon, Richard, Inc., New York, N. Y.
Giberson, E. D., & Co., Inc., New York.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
National Tube Co., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

Pipe, Lead

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Eagle-Picher Lead Co., The, Chicago, Ill.
Michigan Smelting & Refining Co., Detroit.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Prier Brass Mfg. Co., Kansas City, Mo.
Rochester Lead Works, Rochester, N. Y.

Pipe, Lead, Tin Lined

National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Rochester Lead Works, Rochester, N. Y.

Pipe, Lead Lined

Keating, E. F., Co., New York, N. Y.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.

Pipe Pushers

(See "Pushers, Pipe")

Pipe, Spiral, Riveted or Lock Seam

American Rolling Mill Co., Middletown, Ohio.
Fitz Pneumatic Systems, Inc., Brooklyn.
Keating, E. F., Co., New York, N. Y.
Naylor Pipe Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.

Pipe, Spiral, Welded

American Rolling Mill Co., Middletown, O.
Naylor Pipe Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.

Pipe, Steam Jacketed

Keating, E. F., Co., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.

Pipe, Straight Riveted

Barlett Hayward Co., The, Baltimore, Md.
Fitz Water Wheel Co., Hanover, Pa.
Invincible Blow Pipe Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Sacramento Pipe Works, Sacramento, Calif.

Pipes, Brazing and Blow

Air Reduction Sales Co., New York, N. Y.
American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Dockson, C. H., Co., Detroit, Mich.
Kilborn and Bishop Co., The, New Haven, Conn.
Weldit Acetylene Co., Detroit, Mich.

Pipes, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Safety Fire Extinguisher Co., The, New York, N. Y.
Standard Packing & Rubber Co., New York.

Piping, Blow, Exhaust and Ventilating

Burt Manufacturing Co., The, Akron, O.
Naylor Pipe Co., Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Taylor Forge & Pipe Works, Chicago, Ill.

Planers, Metal Working

Manning, Maxwell & Moore, Inc., New York, N. Y.
Rockford Machine Tool Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.

Planers, Woodworking

Boice, W. B. & J. E., Toledo, Ohio.
Champion Blower & Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia
Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa.
Heston & Anderson, Fairfield, Iowa.
Lane Mfg. Co., Montpelier, Vt.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Planes, Electric, Portable

Haskins, R. G., Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Planes, Wood and Iron

Millers Falls Co., Greenfield, Mass.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Wallace, J. D., & Co., Chicago, Ill.

Planimeters

Dietzgen, Eugene, Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
Keuffel & Esser Co., Hoboken, N. J.
Murray, William H., Richmond Hill, New York, N. Y.
Trill Indicator Co., Corry, Pa.

Plates, Angle, for Boring and Grinding Machines

Standard Electrical Tool Co., The, Cincinnati, Ohio.

Plates, Base

Bond Foundry and Machine Co., Manheim, Pa. (Plain and Adjustable)
Conco Engineering Works, Mendota, Ill.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farquhar ,A. B., Co., Ltd., York, Pa.
Frederick Iron & Steel Co., The, Frederick, Md.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hudson-Sharp Machine Co., Green Bay, Wis.
Huron Industries, Inc., Alpena, Mich.
Link-Belt Co., Chicago, Ill.
Noyes, B. B., Co., Greenfield, Mass.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Plates, Belt

(See "Fasteners and Hooks, Belt")

Plates, Floor and Ceiling

Champion Hardware Co., The, Geneva, O.
Chicago Nipple Mfg. Co., Chicago, Ill.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Plates, Handhole, Boiler

(See "Covers and Frames, Manhole and Handhole, Boiler and Tank")

Plates, Name, Bronze

Atlas Brass Foundry Co., The, Columbus, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, O.
Everhot Mfg. Co., Maywood, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Knight, H. W., & Son, Seneca Falls, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.) Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Messmer Brass Co., St. Louis, Mo.
Newman Bros., Inc., Norwood, Cincinnati, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Prier Brass Mfg. Co., Kansas City, Mo.
Sargent & Co., New Haven, Conn.
Torrey Roller Bushing Works, Bath, Me.
Turner Brass Works, The, Sycamore, Ill.

Plates, Name, Machinery

Imperial Brass Manufacturing Co., Chicago, Ill.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.) Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Newman Bros., Inc., Norwood, Cincinnati, Ohio.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Torrey Roller Bushing Works, Bath, Me.
Turner Brass Works, The, Sycamore, Ill.

Plates, Railroad Tie

Jones & Laughlin Steel Corp., Pittsburgh.
Wheeling Steel Corp., Wheeling, W. Va.

Plates, Ring, for Pipe

Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Pittsburgh Valve & Fitting Co., Barberton, Ohio.

Plates, Screw

Alvord-Polk Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Butterfield & Co., Division of Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Champion Blower & Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Phillips Brothers, Philadelphia, Pa.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Plates, Surface, Cast Iron

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Canedy-Otto Mfg. Co., Chicago, Heights, Ill.
Clow, James B., & Sons, Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Frederick Iron & Steel Co., The, Frederick, Md.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Noyes, B. B., Co., Greenfield, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Plates and Powders—Welding, Brazing and Tempering

Bastian-Blessing Co., Chicago, Ill.
Buchanan, C. G., Chemical Co., Norwood, Cincinnati, Ohio.
Calmonoy, Inc., Los Nietos, Calif.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Torchweld Equipment Co., Chicago, Ill.

Platforms, Lift Truck

Electric Wheel Co., Quincy, Ill.
Excelsior Plimp Truck Co., Stamford, Conn.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Schwenk Safety Device Corp., New York.
Standard Pressed Steel Co., Jenkintown, Pa.
Truscon Steel Co., Youngstown, Ohio.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Platforms, Skid

Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Plating and Polishing Brushes

(See "Brushes, Platers' and Polishers'")

Plating and Polishing Supplies

Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
Dallett Co., The, Philadelphia, Pa.

BERNARD
SPECIAL PURPOSE TOOLS
PLIERS PUNCHES
NIPPERS PRUNERS
THE WM. SCHOLLHORN CO.
NEW HAVEN, CONN.

Excelsior Tool and Machine Co., East St. Louis, Ill.
General Abrasive Co., Inc., Niagara Falls, N. Y.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Harrison & Co., Haverhill, Mass.
Keystone Emery Mills, Philadelphia, Pa.
Minnesota Mining & Mfg. Co., St. Paul, Minn. (Polishing only)
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Prier Brass Mfg. Co., Kansas City, Mo.

Pliers

Barcalo Mfg. Co., Buffalo, N. Y.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bridgeport Hdwe. Mfg. Co., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Fletcher-Terry Co., The, Forestville, Conn.
Grobet File Corp. of America, New York.
Hunt, Geo. L. Mfg. Co., Boscobel, Wis.
Kilborn and Bishop Co., The, New Haven, Conn.
Klein, M., & Sons, Chicago, Ill.
Kraeuter & Co., Inc., Newark, N. J.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sandvik Saw & Tool Corp., Minneapolis.
Schollhorn, Wm., Co., The, New Haven, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Vlchek Tool Co., The, Cleveland, Ohio.
Wave Cut File & Tool Corp., New York.

Plows, Grading and Railroad

American Steel Scraper Co., The, Sidney, Ohio.
General Wheelbarrow Co., The, Cleveland. (Grading only)
Sidney Steel Scraper Co., Sidney, Ohio.

Plugs or Stoppers, Boiler Tube

American Injector Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.

Plugs, Drift

(See "Pins or Plugs, Drift")

Plugs, Expansion Core Hole

Crane Co., Chicago, Ill.

Plugs, Fusible

Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Swift Lubricator Co., Elmira, N. Y.
Tranter Mfg. Co., Pittsburgh, Pa.

Trico Fuse Mfg. Co., Milwaukee, Wis.
Walworth Co., New York, N. Y.

Plugs, Large, for Testing Water Mains

Bernz, Otto, Co., Inc., Rochester, N. Y.
Grinnell Co., Inc., Providence, R. I.

Plugs, Pipe, Brass

Acheson Manufacturing Co., Rankin, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Injector Co., Detroit, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Elco Tool & Screw Corp., Rockford, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Holo-Krome Screw Corp., Bristol, Conn.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Messmer Brass Co., St. Louis, Mo.
Mueller Co., Decatur, Ill.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, Franklin, Inc., Orange, N. J.

Plugs, Pipe, Cast Iron

Allen, W. D., Mfg. Co., Chicago, Ill.
Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
National Screw & Mfg. Co., The, Cleveland.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Plugs, Pipe, Malleable Iron

Allen, W. D., Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
Walworth Co., New York, N. Y.

Plugs, Pipe, Steel

Allen Mfg. Co., The, Hartford, Conn.
Allen, W. D., Mfg. Co., Chicago, Ill.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Crane Co., Chicago, Ill.
Elco Tool & Screw Corp., Rockford, Ill.
Holo-Krome Screw Corp., Bristol, Conn.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland.
Newbury Manufacturing Co., Monroe, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Watson-Stillman Co., The, Roselle, N. J.

Plugs, Staybolt

Key Boiler Equipment Co., East St. Louis, Ill.

Plugs, Tap, Boiler and Pipe Repair

Crane Co., Chicago, Ill.
Holland Rubber Co., New York, N. Y.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.

Plumb Bobs

American Swiss File & Tool Co., Elizabeth, N. J.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Dietzgen, Eugene Co., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Keuffel & Esser Co., Hoboken, N. J.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Ruleta Co., Inc., New York, N. Y.
Sargent Co., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Starrett, L. S., Co., The, Athol, Mass.

Plumbago

(See "Graphite")

Plumbers' Tools

(See "Tools—Plumbers', Steam and Gas Fitters'")

Plungers, Pump

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Chicago Rawhide Mfg. Co., The, Chicago.
Coleman, Allan J., Chicago, Ill.
Holland Rubber Co., New York, N. Y.
Mast, Foos & Co., Springfield, Ohio.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Roper, Geo. D., Corp., Rockford, Ill.
Schieren, Chas. A., Co., New York, N. Y.

Points, Drill

Chicago Expansion Bolt Co., Chicago, Ill.
Cleveland Twist Drill Co., The, Cleveland.
Dallett Co., The, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Points, Drive Well

Mast, Foos & Co., Springfield, Ohio.
Walworth Co., New York, N. Y.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Points and Centers, Lathe

(See "Centers and Points, Lathe")

Points, Stone

American Swiss File & Tool Co., Elizabeth, N. J.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Dallett Co., The, Philadelphia, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Mast, Foos & Co., Springfield, Ohio.
Vulcan Tool Mfg. Co., Quincy, Mass.

Pole Gaining Machine

Wappat, Inc., Pittsburgh, Pa.

Poles, Flag

National Tube Co., Pittsburgh, Pa.
Sacramento Pipe Works, Sacramento, Calif. (Steel)

Poles, Pike

American-LaFrance and Foamite Corp., Elmira, N. Y.
Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Mfg. Co., Philadelphia.

Polish, Metal

Baum's Castorine Co., Rome, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Grady Mfg. Co., The, Long Island City, N. Y.
Harris, A. W., Oil Co., Providence, R. I.
Hinds and Coon Co., Boston, Mass.
Kimball, C. M., Co., Everett, Mass.
Matchless Metal Polish Co., The, Chicago.
Miller, Walter W., Co., Indianapolis, Ind.
Patterson Lubricating Co., Boston, Mass.
Paul, J. C., & Co., Chicago, Ill.
Skat Co., The, Hartford, Conn.
Solarine Co., Baltimore, Md.

Polishing Machines

(See "Machines, Buffing and Polishing, Stationary," and "Machines, Sanding and Polishing")

Polishing Supplies

(See "Plating and Polishing Supplies")

Polishing Wheels

(See "Wheels, Buffing and Polishing")

Posts, Drilling

Armstrong Bros. Tool Co., Chicago, Ill.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.

Posts, Indicator, Valve

American Foundry & Mfg. Co., St. Louis.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Posts, Tool, Lathe

Armstrong Bros. Tool Co., Chicago, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Bonney Forge & Tool Works, Allentown, Pa.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Williams, J. H., & Co., New York, N. Y.

Posts, Vise, Portable

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Ridge Tool Co., The, Elyria, Ohio.

Pots—Annealing, Case Hardening, Etc.

Garwood Bronze & Iron Works, Garwood, N. J.
General Electric Co., Schenectady, N. Y.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Pots, Fire

(See "Furnaces, Soldering")

Pots, Galvanizing

(See "Kettles and Pots, Galvanizing")

Pots, Glue

(See "Heaters and Pots, Glue")

Pots and Kettles, Metal Melting

Bellevue Industrial Furnace Co., Detroit.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Biehl Iron Works, Inc., The, Reading, Pa.
Campbell-Hausfeld Co., The, Harrison, O.
Clow, James B., & Sons, Chicago, Ill.
Electro Engineering Co., Inc., Richmond Hill, New York, N. Y. (Electric)
Farrel-Birmingham Co., Inc., Ansonia, Conn.
General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn.
Hollands Mfg. Co., Erie, Pa.
Hones, Chas. A., Inc., Baldwin, N. Y.
Littleford Bros., Cincinnati, Ohio.

Russell Electric Co., Chicago, Ill. (Electric)
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)

Pots, Plumbers' Melting

American Foundry & Mfg. Co., St. Louis.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hollands Mfg. Co., Erie, Pa.
Hones, Chas. A., Inc., Baldwin, N. Y.
Littleford Bros., Cincinnati, Ohio.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Chicago, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Pots, Pouring

American Foundry & Mfg. Co., St. Louis.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Littleford Bros., Cincinnati Ohio.
Trent, Harold E. Co., Philadelphia, Pa.

Pots, Soldering

American Foundry & Mfg. Co., St. Louis.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Electric Soldering Iron Co., Inc., New York.
Electro Engineering Co., Inc., Richmond Hill, New York, N. Y. (Electric)
General Electric Co., Schenectady, N. Y.
Hollands Mfg. Co., Erie, Pa.
Hones, Chas. A., Inc., Baldwin, N. Y.
Littleford Bros., Cincinnati, Ohio.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Russell Electric Co., Chicago, Ill. (Electric)
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa. (Electric)
Turner Brass Works, The, Sycamore, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Pots, Tempering and Hardening

Bellevue Industrial Furnace Co., Detroit.
Garwood Bronze & Iron Works, Garwood, N. J.
Russell Electric Co., Chicago.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Trent, Harold E., Co., Philadelphia, Pa.

Pots, Tallow

Gem Manufacturing Co., Pittsburgh, Pa.

Powders, Abrasive

(See "Emery and Other Abrasives")

Powders, Blasting

(See "Explosives")

Powders—Welding, Brazing and Tempering

(See "Plates and Powders—Welding, Brazing and Tempering")

Powers, Foot

LaSalle Machine Works, Inc., Chicago, Ill.

Preheating Equipment, Welding

Bastian-Blessing Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Diamond Iron Works, Inc., Minneapolis.
Hauck Manufacturing Co., Brooklyn, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Linde Air Products, Inc., The, New York.
Macleod Co., The, Cincinnati, Ohio.
Turner Brass Works, The, Sycamore, Ill.

Preservatives, Belting, Rope and Wire

(See "Dressing and Lubricants" and "Wax, Belt")

Presses, Baling

Business Men's Paper Press Co., Wayland, Mich.
Cardwell Machine Co., The, Richmond, Va.
Economy Baler Co., Ann Arbor, Mich.
Economy Manufacturing Co., Philadelphia, Pa. (Paper balers)
Farquhar, A. B., Co., Ltd., York, Pa.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hudson-Sharp Machine Co., Green Bay, Wis.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Micro Corp., The, Bettendorf, Iowa.
Minnich Machine Works, Landisville, Pa.
Rowe Manufacturing Co., Galesburg, Ill. (Paper)
Tallman Manufacturing Co., Shelbyville, Ill.
Watson-Stillman Co., The, Roselle, N. J.

Presses, Belting, Leather

Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lourie Manufacturing Co., Chicago.
Watson-Stillman Co., The, Roselle, N. J.

Presses, Drill

(See "Machines, Drilling")

Presses, Forcing

Bartlett, Edwin E., Co., Nashua, N. H.
Champion Blower & Forge Co., Lancaster, Pa.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hannifin Manufacturing Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Lourie Manufacturing Co., Chicago, Ill.

Presses, Riveting

(See "Riveters")

Presses, Screw

Barnes, W. F. & John, Co., Rockford, Ill.
Cardwell Machine Co., The, Richmond, Va.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Keckley, O. C., Co., Chicago, Ill.
Minnich Machine Works, Landisville, Pa.
Niagara Machine & Tool Works, Buffalo.

Presses, Straightening, Stock and Shafting

Atlas Press Co., Kalamazoo, Mich.
Bartlett, Edwin E., Co., Nashua, N. H.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Keckley, O. C., Co., Chicago, Ill.
Lourie Manufacturing Co., Chicago, Ill.
Noyes, B. B., Co., Greenfield, Mass.
Watson-Stillman Co., The, Roselle, N. J.

Preventives, Rust

(See "Rust Preventives and Removers")

Primers, Centrifugal Pump

Automatic Primer Co., Chicago, Ill.
Schutte & Koerting Co., Philadelphia, Pa.

Protectors, Blow-Off

Bastian-Blessing Co., Chicago, Ill.
Green, A. P., Fire Brick Co., Mexico, Mo.
McLeod & Henry Co., Troy, N. Y.

Protectors, Boiler Girth Seam

Huyette, Paul B., Co., Inc., Philadelphia.

Protectors—Eye, Face and Head, Industrial Workers'

(See "Masks," "Hats, Safety," "Helmets," "Hoods," "Respirators," "Safety Outfits, Fire Fighting, Asbestos," "Shields, Eye," etc.)

Protectors, Gauge Glass

(See "Guards, Glass, Gauge")

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More than a pruner—it's a husky, powerful tool for brush clearing, timber clearing, etc. Large

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Protectors, Thread

Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.

Protractors

Dietzgen, Eugene, Co., Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

Pruners, Brush and Timber

Porter, H. K., Inc., Everett, Mass.

Pullers, Car

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Dake Engine Co., Grand Haven, Mich.
Diamond Iron Works, Inc., Minneapolis.
Edelblute, Manufacturing Co., Reynoldsville, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Fridy Hoist and Machinery Co., Mountville, Pa.
General Electric Co., Schenectady, N. Y.
Godfrey Conveyor Co., Elkhart, Ind.
International Clay Machinery Co., Dayton, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Templeton, Kenly & Co., Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pullers, Fuse

General Electric Co., Schenectady, N. Y.
Ideal Commutator Dresser Co., Sycamore, Ill.
Safety Equipment Service Co., Cleveland.
Trico Fuse Mfg. Co., Milwaukee, Wis.

Pullers, Nail and Spike

Belden Machine Co., The, New Haven, Conn.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Morrill, Charles, Inc., New York, N. Y.
National Boiler Protector Co., Dayton, O.
Southington Mfg. Co., Inc., The, Southington, Conn. (Tack pullers)

Pullers, Post, Mine

Edelblute, Manufacturing Co., Reynoldsville, Pa.
Mine Safety Appliances Co., Pittsburgh.
Templeton, Kenly & Co., Chicago, Ill.

Pullers, Rivet

(See "Extractors, Rivet")

Pullers, Staple

Crescent Tool Co., Jamestown, N. Y.

Pullers—Wheel, Gear and Bearing

Armstrong-Bray & Co., Chicago, Ill.
Havana Mfg. Co., Havana, Ill.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
K-D Manufacturing Co., Lancaster, Pa.
Miller Tool & Mfg. Co., Inc., Detroit.
Plomb Tool Co., Los Angeles, Calif.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Templeton, Kenly & Co., Chicago, Ill.

Pulley Covering or Lagging

(See 'Covering, Pulley")

Pulleys, Ball Bearing

Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Moore-Master Mfg. Co., Chicago, Ill.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Bearing, Oilless

Arguto Oilless Bearing Co., Wayne Junction, Philadelphia, Pa.
Liggum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
Sprout-Waldron & Co., Inc., Muncy, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Pulleys and Stands, Band Saw

(See "Stands and Pulleys, Band Saw")

Pulleys, Board Drop Hammer

Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Cast Iron

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Boice, W. B. & J. E., Toledo, Ohio.
Bond, Charles, Co., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Brown, D. P., & Co., Philadelphia, Pa.
Carlyle Johnson Machine Co., The, Manchester, Conn.
Chain Belt Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago.
Diamond Iron Works, Inc., Minneapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Harrison Pump and Machinery Corp., Harrison, N. J.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, O.
Huron Industries, Inc., Alpena, Mich.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Mountville Mfg. Co., Mountville, Pa.
Pyott Foundry & Machine Co., Chicago.
Sargent & Co., New Haven, Conn.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Cast Iron, Steel Rim

Brown, D. P., & Co., Philadelphia, Pa.
Edgemont Machine Co., The, Dayton, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Conveying

Dodge Manufacturing Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huron Industries, Inc., Alpena, Mich.
Link-Belt Co., Chicago, Ill.
Menasha Wood Split Pulley Co., Menasha, Wis.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Cork Insert

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Bond, Charles, Co., Philadelphia, Pa.
Medart Co., St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Drum

Bond, Charles, Co., Philadelphia, Pa.
Brown, D. P., & Co., Philadelphia, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Dynamo

(See "Pulleys, Motor")

Pulleys, Flanged

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Pulley Co., The, Philadelphia.
Birkle Machine Works, Chicago, Ill.
Bond Foundry and Machine Co., Manheim, Pa.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hoppes Water Wheel Co., Springfield, O.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Marion Machine Foundry & Supply Co., Marion, Ind.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry and Machine Co., Chicago.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Fly Wheel

(See "Wheels, Fly")

Pulleys, Friction Clutch

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Pulley & Shafting Co., Chicago.
Chicago Rawhide Mfg. Co., The, Chicago.
Conway Clutch Co., The, Cincinnati, Ohio.
Diamond Iron Works, Inc., Minneapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Edgemont Machine Co., The, Dayton, Ohio.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Kinney Manufacturing Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Marion Machine Foundry & Supply Co., Marion, Ind.
Mason, Volney W., & Co., Boston, Mass.
Medart Co., St. Louis, Mo.
Moore-Master Mfg., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago, Ill.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.

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Machine Molded
Cast Iron and Semi Steel

A Complete Service
Any Size—Any Quantity

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330 No. Sangamon St., Chicago.

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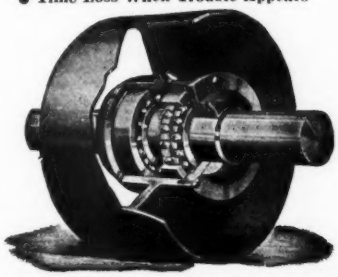
BALL BEARING LOOSE PULLEYS

for machines, centers, mules, idlers and clutches and save them—

- Time in Daily Oiling
- Cost of Lubricant
- Cost of Replacements
- Power Loss by Friction
- Time Loss When Trouble Appears



Daggett Ball Bearing Loose Pulleys are simple in construction and accurately machined, and will carry a belt at any working load or speed without heating. Bearings are dust-proof and require no attention except renewal of lubricant 4 to 6 times a year according to speed conditions.

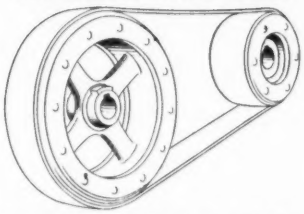
Quick service given on all orders from distributors. Ask for our price list and liberal distributor terms. Our engineers are ready to assist you in your sales problems.

CHICAGO PULLEY & SHAFTING CO.

19 No. Desplaines St. CHICAGO, ILL.

ROCKWOOD

PULLEYS THAT PULL



2540 STOCK SIZES

- - Solid and Split Pulleys - -

for MOTORS, LINESHAFTS and DRIVEN MACHINES

ROCKWOOD Pulleys—built of tough, end-grain fibre that GRIPS and PULLS the belt—are far superior to metal or wood pulleys. Sell them for driven machines and lineshafts, as well as for motors. Their use assures maximum machine capacity and cuts power cost.

Immediate shipments. Write for handy size book and price list.

THE ROCKWOOD MFG. CO.

Division of General Fibre Products, Inc.

INDIANAPOLIS, INDIANA

Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Guide or Gallows

Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Link-Belt Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Loose

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Pulley Co., The, Philadelphia.
Arguto Oilless Bearing Co., Wayne Junction, Philadelphia, Pa.
Birkle Machine Works, Chicago, Ill.
Brown, D. P., & Co., Philadelphia, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago.
Covel-Hanchett Co., Big Rapids, Mich.
Diamond Iron Works, Inc., Minneapolis.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Webb, J. A., Belting Co., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Magnetic

Magnetic Manufacturing Co., Milwaukee.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Motor

American Pulley Co., The, Philadelphia.
Atlas Leather Co., Caseyville, Ill. (Leather fibre)
Brown, D. P., & Co., Philadelphia, Pa.
Birkle Machine Works, Chicago, Ill.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Smith, Winfield H., Inc., Springville, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y. (Fibre)
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Wood's, T. B., Sons Co., Chambersburg, Pa.

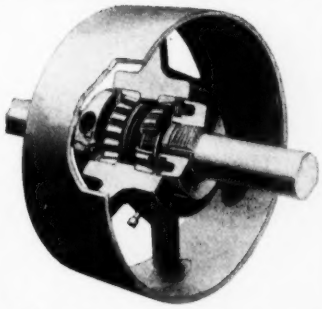
Pulleys and Wheels, Paper

Birkle Machine Works, Chicago, Ill.
Dodge Manufacturing Corp., Mishawaka, Ind.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Rockwood Mfg. Co., The, Indianapolis, Ind.

Pulleys, Roller Bearing

Bond, Charles, Co., Philadelphia, Pa.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chicago Pulley & Shafting Co., Chicago.
Dodge Manufacturing Corp., Mashawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Medart Co., St. Louis, Mo.

LOOSE PULLEYS



Dodge-Timken Cast Iron Loose Pulleys are made from regular patterns used for Double Belt Cast Iron Pulleys. The bearing assembly consists of two Timken Tapered Roller Bearings mounted on a ground steel tube and fitted to hub. Grease seals and two clamping collars are mounted on threaded ends of tube. Bearings are properly adjusted at factory. Grease seals eliminate lubrication troubles. Steel Loose Pulleys can also be furnished.

Write for prices.

DODGE
MISHAWAKA

Dodge Manufacturing Corporation

Mishawaka, Indiana

Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Pyott Foundry & Machine Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Rope

(See "Sheaves, Rope, Power Transmission")

One Address

is given editorially for Each Manufacturer Listed in the Directory Edition

This is the main or general sales office, or the one otherwise specified by the company

•

Dodge Steel Split Pulleys

Dodge Steel Pulleys have established themselves as the standard of quality in every industry on the basis of successful performance. They combine great strength, with light weight and many exclusive features of construction. The grooveless oval crown provides belt contact over the entire face of pulley which permits low belt tension, reduces friction on bearings and saves power. Made of limed steel sheets with high rust resisting quality.

Available from stock on the immediate delivery basis. Write for D-30-Jr., catalogue.

DODGE
MISHAWAKA

Dodge Manufacturing Corporation
Mishawaka, Indiana

Pulleys, Steel

American Pulley Co., The, Philadelphia.
Dick, R. & J., Co., Inc., Passaic, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Maury Mfg. Corp., Chicago, Ill.
Pyott Foundry & Machine Co., Chicago.
Up-To-Date Machine Works, Inc., Chicago.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Steel Rim, Iron Center

Medart Co., St. Louis, Mo.

Pulleys, Step and Taper Cone

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Concord Foundry & Machine Co., Concord, N. H.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Walker-Turner Co., Inc., Plainfield, N. J.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Pulleys, Textile, Special

Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Foote Gear Works, Inc., Chicago, Ill.
Medart Co., St. Louis, Mo.
Ohio Valley Pulley Works, Inc., Maysville, Ky.

Pulleys, Wood

Brown, D. P., & Co., Philadelphia, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Miller Machine Works, Springs, Pa.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Oneida Wood Pulley Co., Inc., Oneida, N. Y.
Reeves Pulley Co., Columbus, Ind.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Pulleys, Wood Rim, Iron Center

Dodge Manufacturing Corp., Mishawaka, Ind.
Medart Co., St. Louis, Mo.
Menasha Wood Split Pulley Co., Menasha, Wis.
Ohio Valley Pulley Works, Inc., Maysville, Ky.

Pump Jacks

Aurora Pump Co., Aurora, Ill.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hudson-Sharp Machine Co., Green Bay, Wis.
Joyce-Cridland Co., The, Dayton, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Midland Mfg. Co., Ft. Worth, Tex.
Nelson Bros. Co., Saginaw, Mich.
Oliver-Barth Jack Co., Milwaukee, Wis.

Pumps, Bilge, Sewage and Sump

(See also "Drainers, Cellar or Pit")

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Automatic Primer Co., Chicago, Ill.
Boston & Lockport Block Co., East Boston, Mass.
Buffalo Pumps, Inc., Buffalo, N. Y.
Chicago Pneumatic Tool Co., New York.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
List, E. J., Mfg. Co., Havana, Ill.
Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati.
Morris Machine Works, Baldwinsville, N. Y.
Mummert-Dixon Co., Hanover, Pa.
Meyers, F. E., & Bro. Co., Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Penberthy Injector Co., Detroit, Mich.
Perkins Marine Lamp Corp., Brooklyn.
Pulsometer Steam Pump Co., Irvington, N. J.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.

PENBERTHY PRODUCTS

Copper and Bronze Throughout

PENBERTHY AUTOMATIC ELECTRIC SUMP PUMPS

Made in six sizes and widely used for removal of seepage water from basements, deep cellars of buildings, boiler rooms, settling basins, flywheel and elevator sumps, piping tunnels and scale pits. For complete specifications and prices, ask for new catalog.

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Detroit, Mich. Windsor, Ont.
Manufacturers of Quality Products Since 1886

Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Watson & McDaniel Co., Philadelphia, Pa.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp, Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Boiler Feed

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Buffalo Pumps, Inc., Buffalo, N. Y.
Steam Pump Works Co., Columbus, Ohio.
Engineering Corp., New York, N. Y.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Cal.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Miller Mfg. Co., Cedar Falls, Iowa.
Moore Steam Turbine Corp., Wellsville, N. Y.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Skidmore Corp., St. Joseph, Mich.
Union Steam Pump Co., Battle Creek, Mich.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Boiler Test

Belfield, H., Co., Philadelphia, Pa.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Roper, Geo. D., Corp., Rockford, Ill.
Scully Jones Co., Tool Division, Chicago.
Union Steam Pump Co., Battle Creek, Mich.
Westco Pump Corp., Davenport, Iowa.

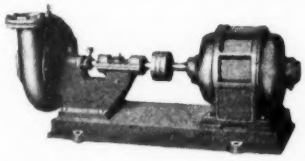
Pumps, Cellar Drainer

(See "Drainers, Cellar or Pit")

Pumps, Centrifugal

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

CENTRIFUGAL PUMPS
Direct Connected to
Motors or Belted Types



Swaby Manufacturing Co.
2010 Marshall Boulevard
Chicago, Ill.

American Steam Pump Co., Battle Creek, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Aurora Pump Co., Aurora, Ill.
Automatic Primer Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Pumps, Inc., Buffalo, N. Y.
Chain Belt Co., Milwaukee, Wis.
Crane Co., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
DeLaval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hoffman Specialty Co., Waterbury, Conn.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
Kimball-Krogh Pump Co. Division of Victor Equipment Co., Los Angeles, Calif.
Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Miller Mfg. Co., Cedar Falls, Iowa.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., Ashland, Ohio.
National Lead Co., New York, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Circulating, Rotary Geared

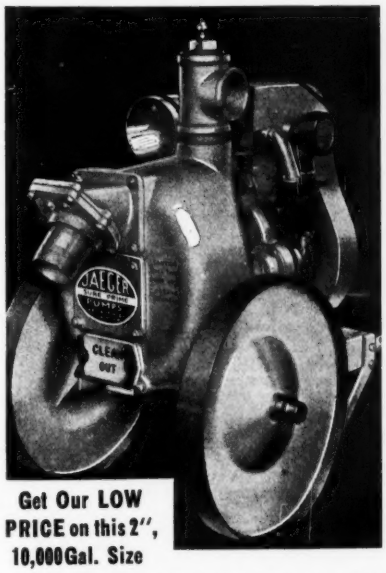
Atlas Brass Foundry Co., The, Columbus, Ohio.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Crane Co., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Frederick Iron & Steel Co., The, Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., Los Angeles, Calif.
Meier Electric and Machine Co., Indianapolis, Ind.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Cistern and Sink

Crane Co., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind. (Cistern only)
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hartley, C. J., & Co., Peoria, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mast, Foos & Co., Springfield, Ohio.
Meier Electric and Machine Co., Indianapolis, Ind.
Myers, F. E., & Bro. Co., Ashland, Ohio.
Nelson Bros. Co., Saginaw, Mich.
Red Cross Mfg. Co., The, Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.

Pumps, Condensation

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Buffalo Pumps, Inc., Buffalo, N. Y.
Crane Co., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Economy Pumping Machinery Co., Chicago.



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Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Loane Engineering Co., Baltimore, Md.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Skidmore Corp., Chicago, Ill.
Swaby Mfg. Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Deep Well

Aldrich Pump Co., The, Allentown, Pa.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Chicago Pneumatic Tool Co., New York.
Crane Co., Chicago, Ill.
Cullman Wheel Co., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Deming Co., The, Salem Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Frederick Iron & Steel Co., The, Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., Los Angeles, Calif.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McGowan, John H., Co., The, Cincinnati, O.
Mast, Foos & Co., Springfield, Ohio.
Meier Electric and Machine Co., Indianapolis, Ind.
Midland Mfg. Co., Ft. Worth, Tex.

Myers, F. E., & Bro. Co., The, Ashland, O.
Pomona Pump Co., Pomona, Calif.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Diaphragm

Boston & Lockport Block Co., East Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Construction Machinery Co., Waterloo, Ia.
Deming Co., The, Salem, Ohio.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Jaeger Machine Co., The, Columbus, Ohio.
Loane Engineering Co., Baltimore, Md.
Meier Electric and Machine Co., Indianapolis, Ind.
Nelson Bros. Co., Saginaw, Mich.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Torrey Roller Bushing Works, Bath, Me.
Westco Pump Corp., Davenport, Iowa.

Pumps, Drainage

(See "Pumps, Irrigation and Drainage")

Pumps, Dredging

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Aurora Pump Co., Aurora, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., Los Angeles, Calif.
Morris Machine Works, Baldwinsville, N. Y.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Swaby Mfg. Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Duplex

American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Buffalo Pumps, Inc., Buffalo, N. Y.
Chain Belt Co., Milwaukee, Wis.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., Mount Gilead, O.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati, O.
Myers, F. E., & Bro. Co., The, Ashland, O.
National Transit Pump & Machine Co., Oil City, Pa.
Penberthy Injector Co., Detroit, Mich.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Weil Pump Co., Chicago, Ill.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Fire

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Economy Pumping Machinery Co., Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Loane Engineering Co., Baltimore, Md. (Portable)
Manistee Iron Works, Co., Manistee, Mich.
Miller Mfg. Co., Cedar Falls, Iowa.
Morris Machine Works, Baldwinsville, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
Roper, Geo. D., Corporation, Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Gas Drip

American Steam Pump Co., Battle Creek, Mich.
Century Pump Co., The, Brooklyn, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Mueller Co., Decatur, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co.,Ltd., Seneca Falls, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Gasoline and Oil

Air-Way Pump Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Best, W. N., Corp., New York, N. Y.
Bowser, S. F., and Co., Fort Wayne, Ind.
Consolidated Instrument Co. of America, Inc., Baltimore, Md. (Electrical)
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kinney Manufacturing Co., Boston, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Mars Co., The, Aurora, Ill.
Martell Packings Co., The, Elyria, Ohio.
Mechanical Devices Co., Bloomington, Ill.
Miller Mfg. Co., Cedar Falls, Iowa.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkins Marine Lamp Corp., Brooklyn.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Gauge Testing

(See "Testers or Test Pumps, Gauge")

Pumps, Hand and Windmill, Force and Lift

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Coleman, Allan J., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
Nelson Bros. Co., Saginaw, Mich.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkins Marine Lamp Corp., Brooklyn.
Red Cross Mfg. Co., The, Bluffton, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Viking Pump Co., Cedar Falls, Iowa.
Watson-Stillman Co., The, Roselle, N. J. (High pressure)

Pumps, Heavy Liquid

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Jackson, Byron Co., Los Angeles, Calif.
Kinney Manufacturing Co., Boston, Mass.
McGowan, John H., Co., The, Cincinnati.
Martell Packings Co., The, Elyria, Ohio.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Morris Machine Works, Baldwinsville, N. Y.
National Transit Pump & Machine Co., Oil City, Pa.
Northern Pump Co. (Formerly Northern Fire Apparatus Co.), Minneapolis, Minn.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Hydraulic

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Bernard, Charles A., Machine Co., Gardner, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown & Sharpe Mfg. Co., Providence.
Cardwell Machine Co., The, Richmond, Va.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jackson, Bryon, Co., Los Angeles, Calif.
Keckley, O. C., Co., Chicago, Ill.
Kimball-Krogh Pump Co. Division of Victor Equipment Co., Los Angeles, Calif.
McGowan, John H., Co., The, Cincinnati.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Watson-Stillman Co., The, Roselle, N. J.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Hydro-Pneumatic

American Steam Pump Co., Battle Creek, Mich.
Deming Co., The, Salem, Ohio.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Watson-Stillman Co., The, Roselle, N. J.
Westco Pump Corp., Davenport, Iowa.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Irrigation and Drainage

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Aurora Pump Co., Aurora, Ill.
Coleman, Allan J., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Dean-Hill Pump Co., Anderson, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., Los Angeles, Cal.

Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Mast, Foos & Co., Springfield, Ohio.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Pomona Pump Co., Pomona, Calif.
Pulsometer Steam Pump Co., Irvington, N. J.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Roper, Geo. D. Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Jet, Steam or Water

American Injector Co., Detroit, Mich.
Blakeslee Mfg. Co., DuQuoin, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Hennebohle, Frank, Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
Manistee Iron Works Co., Manistee, Mich.
Ross Heater & Mfg. Co., Inc., Buffalo.
Schutte & Koerting Co., Philadelphia.
Tranter Mfg. Co., Pittsburgh, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Watson-Stillman Co., The, Roselle, N. J.
Westco Pump Corp., Davenport, Iowa.

Pumps, Lubricating and Cooling, for Machine Tools

Alemite Corp., Chicago, Ill.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Atlas Brass Foundry Co., The, Columbus, Ohio.
Boston Gear Works, Inc., North Quincy, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
Manzel Brothers Co., Buffalo, N. Y.
Martell Packings Co., The, Elyria, Ohio.
Mechanical Devices Co., Bloomington, Ill.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Roper, Geo. D., Corp., Rockford, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.

Pumps, Measuring

(See "Pumps, Gasoline and Oil")

Pumps, Oil, Lubricating

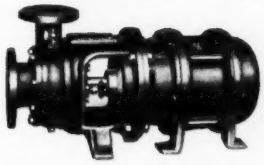
Alemite Corp., Chicago, Ill.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bowser, S. F., and Co., Fort Wayne, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Consolidated Brass Co., Detroit, Mich.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Essex Brass Corp., Detroit, Mich.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hills-McCanna Corp., Chicago, Ill.
Kinney Manufacturing Co., Boston, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
McCullough Manufacturing Co., Minneapolis, Minn.
Madison-Kipp Corp., Madison, Wis.
Manzel Brothers Co., Buffalo, N. Y.
Martell Packings Co., The, Elyria, Ohio.
Mechanical Devices Co., Bloomington, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Plews Oiler Co., Minneapolis, Minn.
Roper, Geo. D., Corp., Rockford, Ill.
Schutte & Koerting Co., Philadelphia, Pa.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Pumps, Power

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bethlehem Steel Co., Bethlehem, Pa.
Bowser, S. F., and Co., Fort Wayne, Ind.
Buffalo Pumps, Inc., Buffalo, N. Y.
Cardwell Machine Co., The, Richmond, Va.
Construction Machinery Co., Waterloo, Ia.
Crane Co., Chicago, Ill.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Jaeger Machine Co., The, Columbus, Ohio.
Kinney Manufacturing Co., Boston, Mass.
Loane Engineering Co., Baltimore, Md. (Portable)
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati.
Mast, Foos & Co., Springfield, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Meier Electric and Machine Co., Indianapolis, Ind.
Miller Mfg. Co., Cedar Falls, Iowa.
Myers, F. E., & Bro. Co., The, Ashland, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Northern Pump Co. (Formerly Northern Fire Apparatus Co.), Minneapolis, Minn.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.

The Cameron

Motorpump



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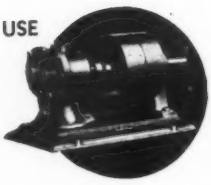

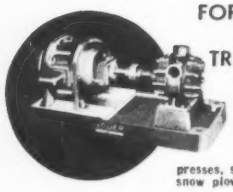

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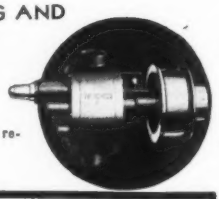
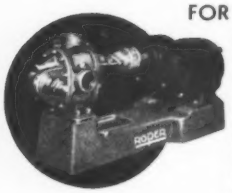
FOR COOLING AND LUBRICATING

handling cutting compounds and lubricating fluids on metal working machines. One way or reversible types.





FOR GASOLINES AND OILS

handle all liquids in fluid state possessing lubricating properties. Especially suited to petroleum products transfer in bulk stations, refineries, etc.

WRITE TODAY
for Pump Bulletins

MSR-2 Hand Transfer
MSR-3 General Use
MSR-4 Coolant
MSR-5 Hydraulic
MSR-6 Auto Lift
MSR-7 Bulk Station and Refinery
MSR-8 Tank Truck
MSR-9 Steam Jacketed
MSW-1 Water Systems
MSA-1 Agricultural Pump Catalog

GEO. D. ROPER CORPORATION, Rockford, Ill.

Power Manufacturing Co., The, Marion, Ohio.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Weil Pump Co., Chicago, Ill.
Wesco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Rotary

Brown & Sharpe Mfg. Co., Providence, R. I.
Crane Co., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Fairbanks Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Gibson, Geo. H., Co., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McGowan, John H., Co., The, Cincinnati.
Martell Packings Co., The, Elyria, Ohio. (Including refrigeration and aeroplane)
Mechanical Devices Co., Bloomington, Ill.
Meier Electric and Machine Co., Indianapolis, Ind.
Miller Mfg. Co., Cedar Falls, Iowa.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Northern Pump Co. (Formerly Northern Fire Apparatus Co.), Minneapolis, Minn.
Oberdorfer, M. L., Brass Co., Syracuse.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Viking Pump Co., Cedar Falls, Iowa.
Wesco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Screw Test

Dean Hill Pump Co., Anderson, Ind.
Morris Machine Works, Baldwinsville, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.

Pumps, Sewage

(See "Pumps, Bilge, Sewage and Sump")

Pumps, Simplex

American Steam Pump Co., Battle Creek, Mich.
Dean Brothers Co., Indianapolis, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Frederick Iron & Steel Co., Frederick, Md.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothrs Mfg. Co., Louisville, Ky.
Worthington Pump and Machinery Corp., Harrison, N. J.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Pumps, Sinking

American Steam Pump Co., Battle Creek, Mich.
Coleman, Allan J., Chicago, Ill.
Dean-Hill Pump Co., Anderson, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
Kimball-Krogh Pump Co. Division of Victor Equipment Co., Los Angeles, Calif.
Manistee Iron Works Co., Manistee, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N.Y.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Spray

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Campbell-Hausfeld Co., The, Harrison, O.
Deming Co., The, Salem, Ohio.
Goulds Pumps, Inc., Seneca Falls, N. Y.
H. D. B. Corporation, Chicago, Ill.
Houchin, Thos. W., Corp., Jersey City, N. J.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Martell Packings Co., The, Elyria, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Saylor-Beal Mfg. Co., Detroit, Mich.
Taber Pump Co., Buffalo, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Steam

American Steam Pump Co., Battle Creek, Mich.
Cardwell Machine Co., The, Richmond, Va.
Dean Brothers Co., Indianapolis, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Ingersoll-Rand Co., New York, N. Y.
McGowan, John H., Co., The, Cincinnati.
National Supply Co., Chicago, Ill. (Systems for oil)
National Transit Pump & Machine Co., Oil City, Pa.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Pulsometer Steam Pump Co., Irvington, N. J.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Watson-Stillman Co., The, Roselle, N. J.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Sump

(See "Pumps, Bilge, Sewage and Sump," and "Drainers, Cellar or Pit")

Pumps, Tank

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Crane Co., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McGowan, John H., Co., The, Cincinnati, O.
Mars Co., The, Aurora, Ill.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
National Transit Pump & Machine Co., Oil City, Pa.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Transfer, Oil

Air-Way Pump Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Bowser, S. F., and Co., Fort Wayne, Ind.
Chapin, R. E., Mfg. Works, The, Batavia, N. Y.
Dean Brothers Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jackson, Byron, Co., Los Angeles, Calif.

Kinney Manufacturing Co., Boston, Mass.
McGowan, John H. Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Martell Packings Co., The, Elyria, Ohio.
Morrison Bros., Dubuque, Iowa.
National Transit Pump & Machine Co., Oil City, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Roper, Geo. D., Corp., Rockford, Ill.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Swift Lubricator Co., Elmira, N. Y.
Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Westco Pump Corp., Davenport, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Triplex

Curtis Pneumatic Machinery Co., St. Louis.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Luitwieler Pumping Engine Co., Rochester, N. Y.
Martell Packings Co., The, Elyria, Ohio.
National Transit Pump & Machine Co., Oil City, Pa.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Scranton Pump Co., The, Scranton, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Vacuum

Allen & Billmyre Co., Inc., New York, N. Y.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Steam Pump Co., Battle Creek, Mich.
Baker-Hansen Mfg. Co., Alameda, Calif.
Chicago Pneumatic Tool Co., New York.
Coleman, Allan J., Chicago, Ill.
Dean Brothers Co., Indianapolis, Ind.
Deming Co., The, Salem, Ohio.
Economy Pumping Machinery Co., Chicago, Ill.
Eisler Electric Corp., Newark, N. J.
Filer & Stowell Co., The, Milwaukee, Wis.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Kinney Manufacturing Co., Boston, Mass.
Leiman Bros., Inc., Newark, N. J.
McGowan, John H., Co., The, Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Miller Improved Gas Engine Co., Springfield, Ohio.
Quincy Compressor Co., Quincy, Ill.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Saylor-Beall Mfg. Co., Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.
Skidmore Corp., St. Joseph, Mich.
Union Steam Pump Co., Battle Creek, Mich.
Viking Pump Co., Cedar Falls, Iowa.
Vogt Brothers Mfg. Co., Louisville, Ky.
Worthington Pump and Machinery Corp., Harrison, N. J.
Yeomans Brothers Co., Chicago, Ill.

Pumps, Whitewash

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Martell Packings Co., The, Elyria, Ohio.
Mast, Foos & Co., Springfield, Ohio.
Myers, F. E., & Bro. Co., The, Ashland, O.
Roper, Geo. D., Corp., Rockford, Ill.
Viking Pump Co. Cedar Falls, Iowa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Pumps, Windmill

(See "Pumps, Hand and Windmill, Force and Lift")

Punch and Shears Combined

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
Gundlach, T. J., Machine Co., Belleville, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Pels, Henry, & Co., Inc., New York, N. Y.
Plymouth Foundry & Machine Co., Plymouth, Wis.
Rock River Machine Co., Janesville, Wis.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Ryerson, Joseph T., & Sons, Chicago, Ill.

Punches, Belt

American Swiss File & Tool Co., Elizabeth, N. J.
Atkins, E. C., and Co., Indianapolis, Ind.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Detroit Oak Belting Co., Detroit, Mich.
Greene, Tweed & Co., New York, N. Y.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Johnson, William, Inc., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Manufacturers' Belt Hook Co., Chicago.
Millers Falls Co., Greenfield, Mass.
Schollhorn, Wm., Co., The, New Haven, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y.

Punches, Center

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Forged Steel Products Co., Newport, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hood Bros., Philadelphia, Pa.
Husky Corp., Kenosha, Wis.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Lufkin Rule Co., The, Saginaw, Mich.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vlchek Tool Co., The, Cleveland, Ohio.

Punches, Drift

American Swiss File & Tool Co., Elizabeth, N. J.
Bonney Forge & Tool Works, Allentown, Pa.
Cincinnati Tool Co., The, Cincinnati, O.
Crescent Tool Co., Jamestown, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Husky Corp., Kenosha, Wis.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.
Vlchek Tool Co., The, Cleveland, Ohio.

Punches, Hand Power

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower and Forge Co., Lancaster, Pa.
Covel-Hanchett Co., Big Rapids, Mich.

WHITNEY

LEVER PUNCHES

No. 1 PUNCH

Length — 34 inches. Capacity — ⅜-inch hole through ¼-inch iron. Punches and dies in sizes from ⅛ to 9/16 by 64ths. Weight—22 lbs.

No. 2 PUNCH

Length — 23 inches. Capacity — 5/16-inch hole through ¼-inch iron. Punches and dies in sizes 3/32 inch to ½-inch by 64ths. Weight—14 lbs.

CHANNEL IRON PUNCH

Companion to No. 2 Punch. Every part of the two Punches interchangeable, including punches and dies. Capacity — ¼-inch hole through ¼-inch iron. Weight—16½ lbs.

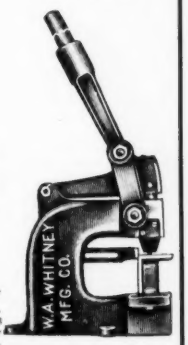
No. 4B PUNCH

Length—8½ inches. Capacity ¼-inch through 16 gauge. Deep Throat—2 inches. Weight — 3 lbs. Punches and Dies—1/16" to 9/32" by 64ths.

No. 6 PUNCH

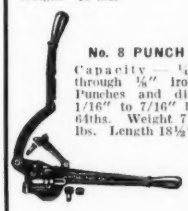
Length — 26½ inches. Capacity — ¼-inch hole through 3/16-inch iron; especially adapted for button punching or templet work. Punches and dies ⅛" to 9/32" by 32nds. Weight—10 lbs.

No. 91 PUNCH



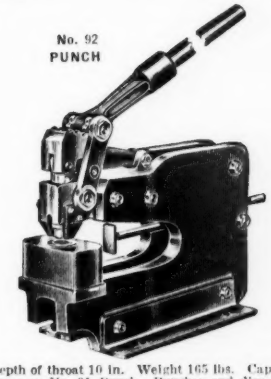
Capacity — ⅝-inch hole through ¼-inch, 1-inch hole through 3/16-inch and 2-inch hole through ⅛-inch iron. Depth throat 5 inches. Weight—82 lbs.

No. 8 PUNCH



Capacity — ¼" through ⅛" iron. Punches and dies 1/16" to 7/16" by 64ths. Weight 7½ lbs. Length 18½".

No. 92 PUNCH



Depth of throat 16 in. Weight 165 lbs. Capacity: Same as No. 91 Punch. Punches and dies interchangeable with No. 91. A valuable accessory is a notching punch and die that will notch angles up to 1½x1½x⅛" and cut a 90-deg. notch.

TRADE MARK
WAW
REGISTERED

W. A. Whitney Mfg. Co.
636 Race St. Rockford, Ill.

G. D. S. Shearing & Punching Machine Co., Inc., New York, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Gundlach, T. J., Machine Co., Belleville, Ill.
Morrill, Charles, Inc., New York, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Parker-Kalon Corp., New York, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Pels, Henry, & Co., Inc., New York, N. Y.
Plymouth Foundry & Machine Co., Plymouth, Wis.
Rock River Machine Co., Janesville, Wis.
Ryerson, Joseph T., & Son, Chicago, Ill.
Vlchek Tool Co., The, Cleveland, Ohio.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Punches, Hollow

American Swiss File & Tool Co., Elizabeth, N. J.
Goodell-Pratt Co., Greenfield, Mass.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Manufacturers' Belt Hook Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Whitney Metal Tool Co., Rockford, Ill.

Punches, Lining-up

Cincinnati Tool Co., The, Cincinnati, Ohio.
Husky Corp., Kenosha, Wis.
Kraeuter & Co., Inc., Newark, N. J.
Maydole, David, Tool Corp., Norwich, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.

Punches, Pin

American Swiss File & Tool Co., Elizabeth, N. J.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Husky Corp., Kenosha, Wis.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Maydole, David, Tool Corp., Norwich, N. Y.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Chicago, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Punches, Prick

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio
Crescent Tool Co., Jamestown, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Husky Corp., Kenosha, Wis.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.
Vlchek Tool Co., The, Cleveland, Ohio.

Punches, Railroad Track

Dudgeon, Richard, Inc., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Marchant, Geo. F., Co., Chicago.
Rock River Machine Co., Janesville, Wis.

Punches, Saddlers'

American Swiss File & Tool Co., Elizabeth, N. J.
Goodell-Pratt Co., Greenfield, Mass.
Greene, Tweed & Co., New York, N. Y.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Kilborn and Bishop Co., The, New Haven, Conn.
Manufacturers' Belt Hook Co., Chicago.
Millers Falls Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Schollhorn, Wm., Co., The, New Haven, Conn.

Punches, Screw

American Swiss File & Tool Co., Elizabeth, N. J.
Dudgeon, Richard, Inc., New York, N. Y.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Marchant, Geo. F., Co., Chicago, Ill.
Rock River Machine Co., Janesville, Wis.
Scully Jones & Co., Tool Division, Chicago.
Whitney Metal Tool Co., Rockford, Ill.

Punches, Solid

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Crescent Tool Co., Jamestown, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Kidder, J. F., Mfg. Co., Inc., Burlington, Vt.
Kilborn and Bishop Co., The, New Haven, Conn.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Pratt & Whitney Co., Hartford, Conn.
Vlchek Tool Co., The, Cleveland, Ohio.
Whitman and Barnes, Inc., Detroit, Mich.
Whitney Metal Tool Co., Rockford, Ill.
Whitney, W. A., Mfg. Co., Rockford, Ill.

Punching and Shearing Machines

(See "Machines, Punching and Shearing")

Purifiers, Feed Water

(See "Filters and Purifiers, Feed Water")

Purifiers, Steam

Blaw-Knox Co., Pittsburgh, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Pushers, Car

(See "Car Movers")

Pushers, Pipe

Giant Mfg. Co., Council Bluffs, Iowa.
Greenlee Bros. & Co., Rockford, Ill.
Templeton, Kenly & Co., Chicago, Ill.

Putty

Colebrook's, W. H., Sons, Inc., Syracuse, N. Y. (Stove and boiler)
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Technical Products Co., Pittsburgh, Pa.
Wills Products Co., The, New York, N. Y.

Pyrometers

Brown Instrument Co., The, Philadelphia.
Cleveland Instrument Co., The, Cleveland.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Moeller Instrument Co., Inc., Brooklyn.
Republic Flow Meters Co., Chicago, Ill.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J.

Quills or Hollow Shafts, Transmission

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., St. Louis, Mo.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Racks, Band Saw

Swett, Frank W., & Son, Chicago, Ill.

Racks, Barrel

Barrett-Cravens Co., Chicago, Ill.
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Lewis-Shepard Co., Boston, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill.
Schwenk Safety Device Corp., New York, N. Y. (Also carboy stands)
West Bend Equipment Corp., West Bend, Wis.

Racks, Gear and Pinion

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Foote Gear Works, Inc., Chicago, Ill.
Standard Steel Specialty Co., Beaver Falls, Pa.

Racks, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Harker Mfg. Co., Cincinnati, Ohio.
Jiffy Fire Hose Rack Co., New York.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Brass Foundry Co., New York.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Wirt & Knox Co., Philadelphia, Pa. (Fire)

Racks—Pipe, Shafting, Stock, Etc.

American Foundry & Mfg. Co., St. Louis.
Barrett-Cravens Co., Chicago, Ill.
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Brown Engineering Co., Reading, Pa.
Illinois Gear & Machine Co., Chicago, Ill. (Cut gear racks)
Lewis-Shepard Co., Boston, Mass.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Pollard Bros. Mfg. Co., Chicago, Ill.

Racks, Screw Machine

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Brown Engineering Co., Reading, Pa.
Cullman Wheel Co., Chicago, Ill.
Foote Gear Works, Inc., Chicago, Ill.

Racks and Stands, Tool

All-Steel-Equip Co., Inc., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Bros. Tool Co., Chicago, Ill.
Aurora Equipment Co., Aurora, Ill.
Berger Manufacturing Co., The (Division of Republic Steel Corp.), Canton, Ohio.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
G. M. Laboratories, Inc., Chicago, Ill. (Soldering iron stands)
Lewis-Shepard Co., Boston, Mass.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Market Forge Co., Everett, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.

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Rags, Wiping

(See "Cloths, Wiping, Machine")

Railings and Fittings, Brass

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Messmer Brass Co., St. Louis, Mo.
Midland Mfg. Co., Ft. Worth, Tex.
Newman Bros., Inc., Norwood, Cincinnati.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson Brass Co., Baltimore, Md.
Walworth Co., New York, N. Y.

Railings, Iron and Steel

Buffalo Wire Works Co., Inc., Buffalo.
Conco Engineering Works, Mendota, Ill.
Clopp, Geo. B., Iron Works, Philadelphia.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grinnell Co., Inc., Providence, R. I.
Littleford Bros., Cincinnati, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio. (Iron only)
Walworth Co., New York, N. Y.

Rails and Accessories, Industrial

American Car & Foundry Co., New York.
Chase Foundry & Mfg. Co., Columbus, O.
Jones & Laughlin Steel Corp., Pittsburgh.
Ryerson, Joseph T., & Son, Chicago, Ill.

Rails, Guide, Elevator

Standard Steel Specialty Co., Beaver Falls, Pa.

Rakes

(See "Hoes, Rakes and Forks")

Rammers, Sand

Chicago Pneumatic Tool Co., New York.
Electric Hammer Syndicate, Louisville.
Hellenberg, J. B., Co., Inc., The, Coldwater, Mich.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.

Rams, Hydraulic

Blackhawk Mfg. Co., Milwaukee, Wis.
Deming Co., The, Salem, Ohio.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.

Rasps

Atkins, E. C., and Co., Indianapolis, Ind.
Cleveland File Co., The, Cleveland, O.
Delta File Works, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hayes File Co., Detroit, Mich.
Heller Brothers Co., Newark, N. J.
Nicholson File Co., Providence, R. I.
Simonds Saw and Steel Co., Fitchburg, Mass.

Ratchets and Ratchet Drills

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Billings & Spencer Co., The, Hartford, Conn.
Cleveland Twist Drill Co., The, Cleveland.
Foote Gear Works, Inc., Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
New Process Twist Drill Co., Taunton, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Adjustable

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass. (Automobile)
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Bibb and Valve Seat

Alvord-Polk Tool Co., Millersburg, Pa.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Conant & Donelson Co., Conway, Mass.
Crane Co., Chicago, Ill.
Gairing Tool Co., The, Detroit, Mich.
Keyston Brass & Rubber Co., Philadelphia, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.

Reamers, Bit Brace and Hand

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Conant & Donelson Co., Conway, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Nye Tool & Machine Works, The, Chicago.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Bridge and Boiler

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit, Mich.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Burring

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Manufacturing Co., Bridgeport, Conn.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.

Reamers, Car

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Center

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Chucking

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Cylinder

Barber-Colman Co., Rockford, Ill.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Kelly Reamer Co., Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Reamers, Diamond

(See "Tools, Diamond Pointed")

Reamers, Electric

Alvord-Polk Tool Co., Millersburg, Pa.
Chicago Pneumatic Tool Co., New York.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Pratt & Whitney Co., Hartford, Conn.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.

Reamers, Expanding

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Chadwick & Trefethen, Portsmouth, N. H.
Cleveland Twist Drill Co., The, Cleveland.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago.
Scully Steel & Iron Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
U. S. Reamer & Tool Corp., Los Angeles.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Expansion

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Scully Steel & Iron Co., Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass. (Automobile)
Union Twist Drill Co., Athol, Mass.
U. S. Reamer & Tool Corp., Los Angeles, Calif.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Locomotive

Alvord-Polk Tool Co., Millersburg, Pa.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Chicago Pneumatic Tool Co., New York.
Cleveland Twist Drill Co., The, Cleveland.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Latrobe Tool Co., Latrobe, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Pipe

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Manufacturing Co., Bridgeport, Conn.
Borden Co., The, Warren, Ohio.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Cleveland Twist Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Union Twist Drill Co., Athol, Mass.
Walworth Co., New York, N. Y.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Shell

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Glenzer, J. C., Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, Ohio.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co. Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers—Spiral Fluted, Rose Chucking, Rose Shell

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Chadwick & Trefethen, Portsmouth, N. H. (Spiral fluted only)
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Latrobe Tool Co., Latrobe, Pa.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Square

Alvord-Polk Tool Co., Millersburg, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Tuck Mfg. Co., Brockton, Mass.
Union Twist Drill Co., Athol, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Reamers, Taper and Taper Pin

Alvord-Polk Tool Co., Millersburg, Pa.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland.
Cowles Tool Co., Cleveland, Ohio.
Gairing Tool Co., The, Detroit, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Reamers, Valve Reseating

(See "Reseating Tools, Valve and Bibb")

Reamers, Woodworking

Independent Pneumatic Tool Co., Chicago.

Reaming Machines

(See "Machines, Reaming")

Receivers, Air

Baker-Hansen Mfg. Co., Alameda, Calif.
Chicago Pneumatic Tool Co., New York.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Dallett Co., The, Philadelphia, Pa.
Ingersoll-Rand Co., New York, N. Y.
Littleford Bros., Cincinnati, Ohio.
Perkins Marine Lamp Corp., Brooklyn.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simplex Spray Equipment Co., Chicago.
Vogt, Henry, Machine Co., Louisville, Ky.
Worthington Pump and Machinery Corp., Harrison, N. J.

Receivers, Ammonia

Brunswick-Kroeschell Co., New Brunswick, N. J.
Vogt, Henry, Machine Co., Louisville, Ky.

Receivers, Condensation

Dean Brothers Co., Indianapolis, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Nason Manufacturing Co., New York.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Worthington Pump and Machinery Corp., Harrison, N. J.

Receptacles, Refuse

(See "Cans or Receptacles, Refuse")

Recharges, Dry, Fire Extinguisher

American-LaFrance and Foamite Corp., Elmira, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Recorders and Indicators, Combustion and Flue Gas, or Carbon Dioxide

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Hays Corp., The, Michigan City, Ind.
Leeds & Northrup Co., Philadelphia, Pa.
McNeill, T. W., Engineering Equipment Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Permutit Co., The, New York, N. Y.
Republic Flow Meters Co., Chicago, Ill.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Uehling Instrument Co., Paterson, N. J.

Recorders, Draft

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Hays Corp., The, Michigan City, Ind.
Mason Regulator Co., Boston, Mass.
Republic Flow Meters Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Recorders, Electrical

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Cutler-Hammer, Inc., Milwaukee, Wis.
Detex Watchclock Corp., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
National Dry Kiln Co., Indianapolis, Ind. (For humidity and temperature)
Uehling Instrument Co., Paterson, N. J.

Recorders, Liquid Level

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Leeds & Northrup Co., Philadelphia, Pa.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.

Recorders, Operation

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn.
Thwing Instrument Co., Philadelphia, Pa.
Veeder-Root, Inc., Hartford, Conn.

Recorders, Revolution

(See "Counters, Revolution" and "Tachometers")

Recorders and Indicators, Specific Gravity

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Hays Corp., The, Michigan City, Ind.
Permutit Co., The, New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

Recorders, Temperature

(See "Thermometers, Recording")

Recorders, Watchmen's

(See "Clocks, Watchmen's")

Recorders, Water Flow

Brown Instrument Co., The, Philadelphia.
Foxboro Co., The, Foxboro, Mass.
Mason Regulator Co., Boston, Mass.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Republic Flow Meters Co., Chicago, Ill.
Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.

Reducers, Fuse, Clamps, Clip, Fuse

Ideal Commutator Dresser Co., Sycamore, Ill.

Reducers, Hose

(See "Fittings, Hose")

Reducers, Pipe

(See "Fittings, Pipe")

Reducers, Speed

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Chicago Die Casting Mfg. Co., Chicago, Ill.
Cullman Wheel Co., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Transmission Corp., New York.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Falk Corp., The, Milwaukee, Wis.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Bros. Gear & Machine Co., Chicago.
Foote Gear Works, Inc., Chicago, Ill.
Gears and Forgings, Inc., Cleveland, Ohio.
Horsburgh & Scott Co., The, Cleveland, O.
Huron Industries, Inc., Alpena, Mich.
Illinois Gear & Machine Co., Chicago, Ill.
Jeffrey Manufacturing Co, The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Keystone-Hindley Gear Co., Philadelphia.
Link-Belt Co., Chicago, Ill.
Master Electric Co., Dayton, Ohio.
Moore Steam Turbine Corp., Wellsville, N. Y.
Morse Chain Co., Ithaca, N. Y.
Palmer-Bee Co., Detroit, Mich.
Philadelphia Gear Works, Philadelphia.
Pratt & Whitney Co., Hartford, Conn.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Smith, Winfield H., Inc., Springville, N. Y.

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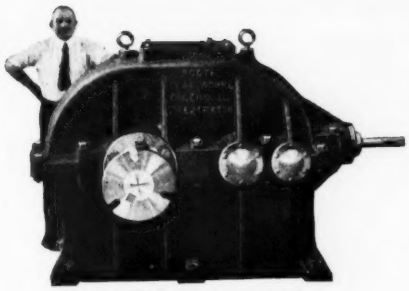
Highest Efficiency
Scientific Engineering



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Economical
Quiet
Finest Construction
Great Overload Capacity

WORM GEAR SPEED REDUCERS

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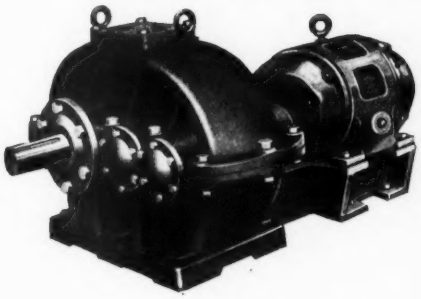
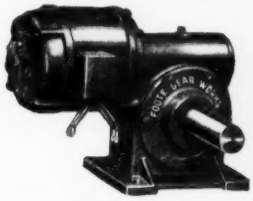
BRAD FOOTE MOTORIZED SPEED REDUCERS



BRAD FOOTE Motorized Speed Reducers are made in Herringbone and Worm Gear Types—supplied with any desired motor. Herringbone in 83 ratios from ¼ H.P. to 475 H.P. Worm Type from ¼ H.P. to 7½ H. P. Single reduction—Ratios 8 to 1 up to 60 to 1. Double in larger ratios. Higher H.P. if desired.



BRAD FOOTE Speed Reducers are made to accommodate all types of installation. Supplied with either A.C. or D.C. motor. Send data on your requirements.

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Jones
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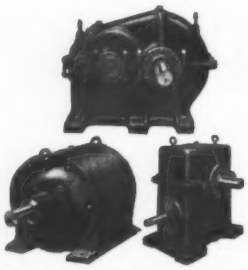

The Jones Worm Gear Reducer is a right angle drive, fully enclosed, oil proof and dust proof. The worm is of a low carbon alloy steel hardened, ground, and polished. The worm gear is made of a nickel bronze alloy by the most modern process of chill casting. Timken Bearing Equipped. Available in ratios from 4 to 1 up to 90 to 1. Horsepowers from ¼ to 100.

The Jones Spur Gear Reducer is a balanced straight line drive, fully enclosed, oil proof and dust proof. Pinions and gears are of high carbon steel forged integral with shafts. Bearings are of phosphor bronze of liberal size. Ratios available from 5⅓ to 1 up to 200 to 1. Horsepowers from ½ to 75.

The Jones Herringbone Gear Reducer is a parallel shaft drive, fully enclosed, oil proof and dust proof. Pinions and gears are of heat treated alloy steel forged integral with shafts. Roller Bearing Equipped. Available in ratios from 1¼ to 1, up to 300 to 1. Capacities from 1 H.P. to 400 H.P.

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Wittek Mfg. Co., Chicago, Ill.

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Chicago Tubing & Braiding Co., Chicago.
Clark, James, Jr., Electric Co., Louisville, Ky.
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Geuder, Paeschke & Frey Co., Milwaukee.
Gilmer, L. H., Co., Philadelphia, Pa.
Greenlee Bros. & Co., Rockford, Ill.
Harrington Co., Philadelphia, Pa.
Harris, Arthur, & Co., Chicago, Ill.
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Jeffrey Mfg. Co., Columbus, Ohio.
Johns-Manville Sales Corp., New York.
Johnson Bronze Co., New Castle, Pa.
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Kerotest Mfg. Co., Pittsburgh, Pa.
Lidseen, Gustave, Inc., Chicago, Ill.
Linde Air Products Co., New York, N. Y.
Link-Belt Co., Chicago, Ill.
Lupton's, David, Sons Co., Philadelphia.
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Leeds & Northrup Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Murray, William H., Richmond Hill, New York, N. Y.
Parker-Kalon Corp., New York, N. Y.
Sarco Co., Inc., New York, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn.
Watts Regulator Co., Lawrence, Mass.

Regulators, Draft

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Brown Instrument Co., Philadelphia, Pa.
Fisher Governor Co., The, Marshalltown, Iowa.
Foxboro Co., The, Foxboro, Mass.
Gorton Heating Corp., Crawford, N. Y.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Mason Regulator Co., Boston, Mass.
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Murray, William H., Richmond Hill, New York, N. Y.
Tillery's Little Janitor Clock Co., Newark, N. J.

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Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
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Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Schade Valve Mfg. Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Regulators, Feed Water

Brown Instrument Co., Philadelphia, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Northern Instrument Co., Erie, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Watts Regulator Co., Lawrence, Mass.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

Regulators, Flow

Bastian-Blessing Co., Chicago, Ill.
Brown Instrument Co., Philadelphia, Pa.
Davis Regulator Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
General Electric Co., Schenectady, N. Y.
Hennebohle, Frank, Chicago, Ill.
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Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Standard Oil Co. of New York, The, New York, N. Y.

Regulators, Gas

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brown Instrument Co., Philadelphia, Pa.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Harris Calorific Co., The, Cleveland, Ohio.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Lawler Water Feed and Damper Regulator Co., Chicago, Ill.
Leiman Bros., Inc., Newark, N. J.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Regulators, Humidity

Bishop & Babcock Sales Co., Cleveland, O.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Foxboro Co., The, Foxboro, Mass.
Klipfel Manufacturing Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Powers Regulator Co., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Regulators, Oil Burner

Bastian-Blessing Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.

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Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Dockson, C. H., Co., Detroit, Mich.
Harris Calorific Co., The, Cleveland, O.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Linde Air Products, Inc., The, New York.
Milburn, Alexander, Co., The, Baltimore, Md.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pitsburgh, Pa.
Sight-Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.

Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

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Bastian-Blessing Co., Chicago, Ill.
Binks Manufacturing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foxboro Co., The, Foxboro, Mass.
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Schade Valve Mfg. Co., Philadelphia, Pa.
Sight Feed Generator Co., Richmond, Ind.
Simplex Spray Equipment Co., Chicago, Ill.
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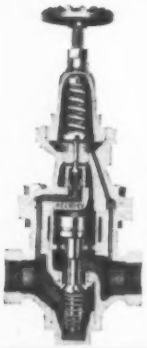
Taylor Instrument Companies, Rochester, N. Y.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Weldit Acetylene Co., Detroit, Mich.

Regulators, Pressure, Steam

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co. Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Murray, William H., Richmond Hill, New York, N. Y.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Powers Regulator Co., The, Chicago, Ill.

KECKLEY



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Bristol Co., The, Waterbury, Conn.
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Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Nunn Brass Works, Rochester, N. Y.
Powers Regulator Co., The, Chicago, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Regulators, Pump

(See "Governors or Regulators, Pump")

Regulators, Stoker

Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Murray, William H., Richmond Hill, New York, N. Y.

Regulators, Tank

Bastian-Blessing Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
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Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Watts Regulator Co., Lawrence, Mass.

Regulators, Temperatuure

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Keckley, O. C., Co., Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Powers Regulator Co., The, Chicago, Ill.
Russell Electric Co., Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
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Uehling Instrument Co., Paterson, N. J.

Regulators, Temperature, Liquid

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Foxboro Co., The, Foxboro, Mass.
Keckley, O. C., Co., Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Powers Regulator Co., The, Chicago, Ill.
Russell Electric Co., Chicago, Ill.
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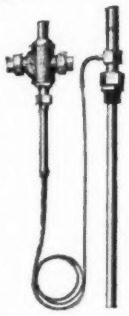
Bastian-Blessing Co., Chicago, Ill.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Klipfel Manufacturing Co., Chicago, Ill.
Leiman Bros., Inc., Newark, N. J.
Mason Regulator Co., Boston, Mass.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Swartwout Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn.
Taylor Instrument Companies, Rochester, N. Y.

Regulators, Water Level

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Foxboro Co., The, Foxboro, Mass.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.

SARCO

Temperature Regulators



Sarco Temperature Regulator is operated by an extremely sensitive liquid and is instantly responsive to the slightest fluctuation in the temperature of atmosphere or liquids. It requires no external operating means, such as compressed air, water or electricity.

Sarco Regulators are substantially constructed. The valve is balanced and packless.

Suitable for steam, water, oil and gas, from 0° to 300° F, and can also be had in the "reverse acting" type, to open with rise of temperature.

A 6-ft. connecting tubing between thermostat and valve is furnished with regulator, but when needed, longer tubings are supplied at a slight additional cost.

Type TR-21 is designed for tank, heater and duct control, and has an adjustment range of 50° F.

Type KR-14 is designed for room and dry kiln control and has an adjustable range of 50° F.

Types KR-25 and TR-25 have a range of 100° F. The latter is designed for liquid, the former for room control. *Write for Catalog Z-52.*

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183 Madison Ave., New York, N. Y.

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Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Nason Manufacturing Co., New York.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Schade Valve Mfg. Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Watts Regulator Co., Lawrence, Mass.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

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Keystone Reamer & Tool Co., Millersburg, Pa.
Snap-On Tools, Inc., Kenosha, Wis.

Removers, Rust

(See "Rust Preventives and Removers")

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American Chain Co., Inc., Bridgeport, Conn.
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Tallman Manufacturing Co., Shelbyville, Ill.

Replacers, Fuse

(See "Pullers and Replacers, Fuse")

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Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
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Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

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Crane Co., Chicago, Ill.
Foster-Johnson Reamer Co., Elkhart, Ind.
Gairing Tool Co., The, Detroit, Mich.
Ideal Commutator Dresser Co., Sycamore, Ill.
Jay Tee Tool Sales Co., Cleveland, Ohio.
Jenkins Bros., New York, N. Y.
Keystsone Reamer & Tool Co., Millersburg, Pa.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Noyes, B. B., Co., Greenfield, Mass.
Powell, Wm., Co., The, Cincinnati, Ohio.
Skinner, M. B., Co., South Bend, Ind.
Snap-On Tools, Inc., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
U. S. Reamer & Tool Corp., Los Angeles.
Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., Springfield, Mass.

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Hygea Respirator Co., New York, N. Y.
Mine Safety Appliances Co., Pittsburgh.
Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Willson Products, Inc., Reading, Pa.

Respirators and Hoods Combined

(See "Hoods and Respirators Combined")

Restorers, Thread

(See "Thread Restorers")

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(See "Crucibles and Retorts")

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Tessmer Machine & Tool Co., Detroit.

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(See "Links and Rings, Balata")

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Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Richardson, Edro, Brass Co., The, Baltimore, Md.
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Standard Packing & Rubber Co., New York.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
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Field, R. B., & Co., Worcester, Mass.
Standard Packing & Rubber Co., New York.
U. S. Indestructible Gasket Co., Brooklyn.
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Chicago Expansion Bolt Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Walworth Co., New York, N. Y.

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Field, R. B., & Co., Worcester, Mass.
Craton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Moloney Belting Co., Chicago, Ill.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Whiting Leather & Belting Co., Long Island City, N. Y.

Rings and Wedges, Tool Post

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(See "Sets, Rivet")

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Riveters, Stake

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Lamson & Sessions Co., The, Cleveland.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
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Sheffield Steel Corp., Kansas City, Mo.

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Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Massachusetts Machine Shop, Inc., Boston, Mass.
National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
U. S. Indestructible Gasket Co., Brooklyn.
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Rivets, Hame

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Atlas Tack Corp., Fairhaven, Mass.
Clark Bros. Bolt Co., Milldale, Conn.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rivets, Steel or Iron, Small

Atlas Bolt & Screw Co., The, Cleveland.
Atlas Tack Corp., Fairhaven, Mass.
Champion Rivet Co., The, Cleveland, Ohio.
Clark Bros. Bolt Co., Milldale, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland.
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
Milwaukee Tack Co., Milwaukee, Wis.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.
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Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Youngstown, Ohio.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rivets, Tinners'

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atlas Bolt & Screw Co., The, Cleveland.
Atlas Tack Corp., Fairhaven, Mass.
Everitt Co., The, Boston, Mass.
Lamson & Sessions Co., The, Cleveland.
Milwaukee Tack Co., Milwaukee, Wis.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
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Atlas Bolt & Screw Co., The, Cleveland.
Clark Bros. Bolt Co., Millidale, Conn.
Heller Brothers Co., Newark, N. J.
Pittsburgh Screw & Bolt Corp., Pittsburgh.

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Johns-Manville Sales Corp., New York.
Manufacturers' Belt Hook Co., Chicago.
Miley, L. J., Co., Inc., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Rock Wool

(See "Wool, Mineral")

Rod Ends

(See "Ends, Rod")

Rods — Brass, Bronze and Copper

(See "Brass Rods," "Bronze Rods" and "Copper Rods")

Rods, Drill

Frasse, Peter A., & Co., Inc., New York.
Kidd Drawn Steel Co., Aliquippa, Pa.
Ludlum Steel Co., Watervliet, N. Y.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Flue Cleaner

Billings & Spencer Co., The, Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Skinner, M. B., Co., South Bend, Ind.

Rods, Hydrant

M & H Valve & Fittings Co., Anniston, Ala.

Rods, Pipe

Pittsburgh Screw & Bolt Corp., Pittsburgh.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Piston

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Frederick Iron & Steel Co., The, Frederick, Md.
Jones & Laughlin Steel Corp., Pittsburgh.
Leard, William, Co., Inc., The, New Brighton, Pa.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Pump, Deep Well

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Dean-Hill Pump Co., Anderson, Ind.
Deming Co., The, Salem, Ohio.
Farquhar, A. B., Co., Ltd., York, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.

Rods, Sewer Cleaning

Bernz, Otto, Co., Inc., Rochester, N. Y.
Coleman, Allan J., Chicago, Ill.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Rapid Spring Co., The, Pittsburgh, Pa.

Rods, Stove

American Screw Co., Providence, R. I.
Continental Wood Screw Co., New Bedford, Mass.
National Screw & Mfg. Co., The, Cleveland.
Pheoll Mfg. Co., Chicago, Ill.

Rods, Threaded

Acme Machine Products Co., Muncie, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Bonney Forge & Tool Works, Allentown, Pa.
Conco Engineering Works, Mendota, Ill.
Continental Wood Screw Co., New Bedford, Mass.
Frederick Iron & Steel Co., The, Frederick, Md.
Grinnell Co., Inc., Providence, R. I.
Harper, H. M., Co., Chicago, Ill. (Brass)
Lewis Bolt & Nut Co., Minneapolis, Minn.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh.
New England Screw Co., Boston, Mass.
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Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.

Rods, Tie

American Steel & Wire Co., Chicago, Ill.
Conco Engineering Works, Mendota, Ill.
Frederick Iron & Steel Co., The, Frederick, Md.
Milton Manufacturing Co., The, Milton, Pa.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester.
Upson-Walton Co., The, Cleveland, Ohio.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods, Wire, Steel

American Steel & Wire Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh.
National Screw & Mfg. Co., The, Cleveland.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
Union Drawn Steel Co., Beaver Falls, Pa.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Rods and Wire, Welding

(See "Wire and Rods, Welding")

Rollers, Boiler Tube, Locomotive

Dudgeon, Richard, Inc., New York, N. Y.
Key Boiler Equipment Co., East St. Louis, Ill.
Leard, William, Co., Inc., The, New Brighton, Pa.

Rollers, Lumber

Filer & Stowell Co., The, Milwaukee, Wis.
Leach Co., Oshkosh, Wis.
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Stimmel Winch Co., Long Island City, N. Y.

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Filer & Stowell Co., The, Milwaukee, Wis.
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Grinnell Co., Inc., Providence, R. I.
Newbury Manufacturing Co., Monroe, N. Y.
Walworth Co., New York, N. Y.

Rolls, Conveyor

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Pulley Co., The, Philadelphia.
Buffalo Forge Co., Buffalo, N. Y.
Chain Belt Co., Milwaukee, Wis.
Diamond Iron Works, Inc., Minneapolis.
Filer & Stowell Co., The, Milwaukee, Wis.
Leard, William, Co., Inc., The, New Brighton, Pa.
Liggnum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
Link-Belt Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Shafer Bearing Corp., Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Rolls, Pipe Hanger

Grabler Mfg. Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.

Rolls — Wood, Metal and Rubber

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Edwards Manufacturing Co., Inc., Cincinnati, Ohio. (Iron and steel)
Filer & Stowell Co., The, Milwaukee, Wis.
Hudson-Sharp Machine Co., Green Bay, Wis. (Metal and rubber only)
Liggnum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mathews Conveyor Co., Ellwood City, Pa.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Saginaw Stamping & Tool Co., Saginaw, Mich. (Granite conveyor)
Standard Packing & Rubber Co., New York.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Roofing, Asphalt

Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Flintkote Co., The, Boston, Mass.
Garland Co., The, Cleveland, Ohio.
Johns-Manville Sales Corp., New York.
Lehon Co., The, Chicago, Ill.
National Asbestos Mfg. Co., Jersey City, N. J.
National Manufacturing Corp., Tonawanda, N. Y.
Paraffine Companies, Inc., The, San Francisco, Calif.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Perolin Co. of America, The, Chicago, Ill.
Ruberoid Co., The, New York, N. Y.
Wills Products Co., The, New York, N. Y.

Roofing, Miscellaneous

Blaw-Knox Co., Pittsburgh, Pa. (Sheathing)
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Darcoid Co., Inc., The, New York, N. Y. (Asbestos)
Edwards Mfg. Co., The, Cincinnati, Ohio. (Iron and steel)
Johns-Manville Sales Corp., New York, N. Y. (Asbestos, cork, etc.)
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Littleford Bros., Cincinnati, Ohio.
National Asbestos Mfg. Co., Jersey City, N. J. (Asbestos)
National Lead Co., New York, N. Y.
New Jersey Zinc Co., The, New York, N. Y. (Zinc)
Paraffine Companies, Inc., The, San Francisco, Calif.
Republic Steel Corp., Youngstown, Ohio. (Black, galvanized and painted steel)
Ruberoid Co., The, New York, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio. (Steel decking, asbestos covered)

Rope, Cotton

Hettrick Manufacturing Co., The, Toledo, Ohio.
Lambeth Rope Corp., New Bedford, Mass.
Ohio Buff & Mfg. Co., The, Cincinnati, O.

Rauschenberger, John, Co., Milwaukee, Wis.
Samson Cordage Works, Boston, Mass. (Braided)

Rope, Jute

American Mfg. Co., Brooklyn, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Columbian Rope Co., Auburn, N. Y.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Rauschenberger, John, Co., Milwaukee.

Rope, Manila

All States Roofers Equipment & Material Co., Chicago, Ill.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Kelley, R. A., Co., The, Xenia, Ohio.
Plymouth Cordage Co., North Plymouth, Mass.
Rauschenberger, John, Co., Milwaukee.
St. Louis Cordage Mills, St. Louis, Mo.
Upson-Walton Co., The, Cleveland, O.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Rope, Marline Covered

American Steel & Wire Co., Chicago, Ill.
Columbian Rope Co., Auburn, N. Y.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Rauschenberger, John, Co., Milwaukee.
Upson-Walton Co., The, Cleveland, Ohio.

Rope, Rawhide

Chicago Rawhide Mfg. Co., The, Chicago.
Couse & Bolten, Inc., Newark, N. J.
Moloney Belting Co., Chicago, Ill.
Page Belting Co., Concord, N. H.
Schieren, Chas., A., Co., New York, N. Y.
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Hettrick Manufacturing Co., The, Toledo, Ohio.
Hooven & Allison Co., The, Xenia, Ohio.
Kelley, R. A., Co., The, Xenia, Ohio.
Plymouth Cordage Co., North Plymouth, Mass.
Rauschenberger, John, Co., Milwaukee.
St. Louis Cordage Mills, St. Louis, Mo.
Upson-Walton Co., The, Cleveland, Ohio.

Rope, Transmission

(See "Rope, Manila," "Rope, Wire," and "Rope, Rawhide")

Rope, Wire

American Cable Co., Inc., Wilkes-Barre, Pa.
American Hoist & Derrick Co., St. Paul, Minn.
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis.
Buffalo Wire Works Co., Inc., Buffalo.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
Macwhyte Co., Kenosha, Wis.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Upson-Walton Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.
Williamsport Wire Rope Co., Williamsport, Pa.

Ropes, Tow

American Steel & Wire Co., Chicago.
Broderick & Bascom Rope Co., St. Louis.
Buffalo Wire Works Co., Inc., Buffalo.
Hazard Wire Rope Co., Wilkes-Barre, Pa.
Leschen, A., & Sons Rope Co., St. Louis.
Macwhyte Co., Kenosha, Wis.
Rauschenberger, John, Co., Milwaukee.
Roebling's, John A., Sons Co., Trenton, N. J.
Samson Cordage Works, Boston, Mass.
Williamsport Wire Rope Co., Williamsport, Pa.

Rounders or Jointers, Saw Guide

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Swett, Frank W., & Son, Chicago, Ill.

Routers, Portable

Buckeye Portable Tool Co., The, Dayton, Ohio. (Pneumatic)
Cincinnati Electrical Tool Co., The, Cincinnati, Ohio. (Electric)
Hermance Machine Co., Williamsport, Pa. (Stair)
Orum, S. R. M., Inc., Philadelphia, Pa. (Electric)
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Swett, Frank W., & Son, Chicago, Ill. (Electric)
Wappat, Inc., Pittsburgh, Pa. (Electric)

Routers, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Calladay Machine Works, Philadelphia.
Disston, Henry, & Son, Inc., Tacony, Philadelphia, Pa.

Rubbers, Packer and Swab

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Watt's Sons, John M., Philadelphia, Pa.

Rubbing Machines, Flexible Shaft

(See "Machines, Rubbing, Flexible Shaft")

Rules, Folding

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Rules, Steel

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Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Lufkin Rule Co., The, Saginaw, Mich.
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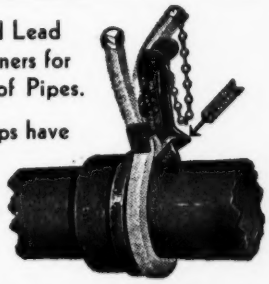

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(See "Guards and Safety Appliances, Machinery")

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(See "Machines, Sanding")

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Chain Belt Co., Milwaukee, Wis.
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Filer & Stowell Co., The, Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.
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Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
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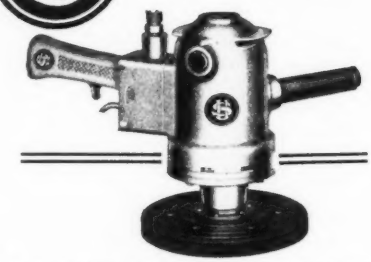

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Sawing Machines, Band

(See "Machines, Band Saw")

Sawing Machines, Radial

(See "Machines, Sawing, Radial")

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Saws, Band (Machine)

(See "Machines, Band Saw")

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Portable Power Tool Corp., Warsaw, Ind.
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Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Porter-Cable-Hutchinson Corp., The, Syracuse, N. Y.
Racine Tool & Machine Co., Racine, Wis.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
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Thompson, Henry G., & Son Co., The, New Haven, Conn.
Walker-Turner Co., Inc., Plainfield, N. J.
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Chattanooga Saw Works, Chattanooga, Tenn.
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Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
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Holcomb, A. L., Co., Grand Rapids, Mich.
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Moak Machine & Tool Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.
Walker-Turner Co., Inc., Plainfield, N. J.
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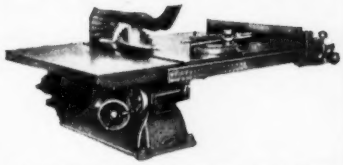

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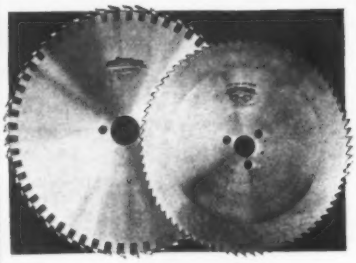

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Jones Superior Machine Co., Chicago, Ill.
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Pratt & Whitney Co., Hartford, Conn.
Red Star Products Corp., Cleveland, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stalter Edge Tool Co., Grand Rapids, Mich.
Swett, Frank W., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

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Bernz, Otto, Co., Inc., Rochester, N. Y.
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Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.

Saws, Concave

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Disston, Henry, & Sons., Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., The, Pittsburgh.
Ohlen-Bishop Co., The, Columbus, O.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.
Wappat, Inc., Pittsburgh, Pa.

Saws, Coping

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Barnes, W. O., Co., Inc., Detroit, Mich. (Pin pattern)
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
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Thompson, Henry G., & Son Co., The, New Haven, Conn.
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Saws, Cut-Off

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Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mattison Machine Works, Rockford, Ill. (Wood)
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Torrington Mfg. Co., The, Torrington, Conn.
United States Machine Co., Williamsport, Pa.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Wood, H. C., Machine Works, San Francisco, Calif.

Saws, Drag

Atkins, E. C., and Co., Indianapolis, Ind.
Clopp, Geo. B., Iron Works, Philadelphia.
Curtis Pneumatic Machinery Co., St. Louis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Lane Mfg. Co., Montpelier, Vt.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mountville Mfg. Co., Mountville, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Saw Mill Machinery Co., Erie, Pa.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Electric, Portable and Stationary

Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Black & Decker Mfg. Co., The, Towson, Md.
Champion Blower and Forge Co., Lancaster, Pa.
Construction Machinery Co., Waterloo, Ia.
Delta Mfg. Co., Milwaukee, Wis.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Heston & Anderson, Fairfield, Iowa.
Independent Pneumatic Tool Co., Chicago.
Jones Superior Machine Co., Chicago, Ill.
Master Woodworker Mfg. Co., Detroit.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Moak Machine & Tool Co., Port Huron, Mich.
Portable Power Tool Corp., Warsaw, Ind.
Porter-Cable-Hutchinson Corp., Syracuse.
Red Star Products Corp., Cleveland, Ohio.
Reed-Prentice Corp., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.

ATKINS SILVER STEEL SAWS

—The BEST Cross Cuts Made!

No. 55
SILVER STEEL "Segment Ground" Cross Cut Saw with the "Blue Ends" is ATKINS newest achievement! A 4-cutter saw; deep raker gullets; 14x16x20 ga. Super-fine in temper, material, and workmanship. Made especially for expert loggers. Easily identified by the famous "Blue Ends" and the Blue and Yellow stick. Made in 5, 5½, 6 and 6½ foot lengths.

No. 51
SILVER STEEL "Segment Ground" Saw is for bucking in Pacific Coast regions. Recommended for Fir, Western Pine and similar woods. Full width heavy blade, toothed-to-the-end. Extra long teeth and rakers with wide, roomy gullets. 13x15x17 ga. No. 52 for falling. 251 and 252 similar saws at medium prices. Lengths from 5 to 9 feet.

ATKINS manufactures a *complete* line of SILVER STEEL "Segment Ground" Cross Cut and One-Man Saws for every purpose and for all kinds of wood.

●

See your distributor—or write to us.

●

E. C. ATKINS AND COMPANY
420 S. Illinois St., - Indianapolis, Indiana

SIX POWERFUL SKILSAWS

The Fastest Selling highest grade products in their field.

For Production Maintenance and Construction

● **Skilsaws are beyond comparison the leading portable electric hand saws in reliability, performance and demand from users everywhere. Have more power, size for size, more refinements in construction and an unapproached record of success.**

MODEL W — Cuts 1⅞" Light duty—for job carpentry, shipping room, etc.

MODEL J — Cuts 1⅞" Heavy duty—for all building and maintenance.

MODEL E — Cuts 2¾" Favorite with contractors. For stone compositions, too.

MODEL S — Cuts 3" Outstanding production tool for metal, wood. Also flooring.

MODEL O — Cuts 3¾" Powered for heavy timber work, stone, concrete, tile, etc.

MODEL R — Cuts 4⅝" Accepted as the most powerful tool of its kind made.

● **Write for latest catalog and complete Distributors' Proposition**

SKILSAW, INC., 3344 ELSTON AVE., CHICAGO

Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
Syntron Co., Pittsburgh, Pa.
United States Electric Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.
Wells Manufacturing Co., Three Rivers, Mich. (Electric butcher saws)
Wood, H. C., Machine Works, San Francisco, Cal.

Saws, Electricians'

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Gang

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Torrington Mfg. Co., The, Torrington, Conn.

Saws, Grooving

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mall Tool Co., Chicago, Ill.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Every Effort Has Been Made
to Make
The Directory Edition
as Complete and Up-to-date as Possible

However, There May Be Instances Where You Do Not Find the Information You Are Seeking

In Such Cases, Write

MILL SUPPLIES

And We Will Do Everything We Can to Secure It for You

"LENOX"

"The Tools in the Plaid Box"

HACK SAW BLADES

"Lenox" All Hard Hand Blades

The "Lenox" All Hard Blade is the style usually selected for the most efficient production and service.

Standard List

Length Inches	Width Inches	Gauge Thickness	Teeth per Inch				List Price per Gross
8	7/16	23—.025	..	18	24	32	$8.00
10	1/2	23—.025	14	18	24	32	10.00
12	1/2	23—.025	14	18	24	32	12.00
12	9/16	23—.025	14	18	24	..	13.50

Flexible Hand Blades

The "Lenox" Flexible Blade is hardened on the teeth only, the back being left soft which prevents breakage. We recommend them particularly to plumbers, electricians, and garage mechanics. Because of their unbreakable quality and the abuse they will stand, many machine shops prefer them for use by unskilled workers or where awkward cutting positions are encountered.

Standard List

Length Inches	Width Inches	Gauge Thickness	Teeth per Inch				List Price per Gross
8	7/16	23—.025	..	18	24	32	$8.00
10	1/2	23—.025	14	18	24	32	10.00
12	1/2	23—.025	14	18	24	32	12.00
12	9/16	23—.025	14	18	24	..	13.50

The length of all Hand Blades measure from center to center of holes.

"Lenox" Light Power Blades

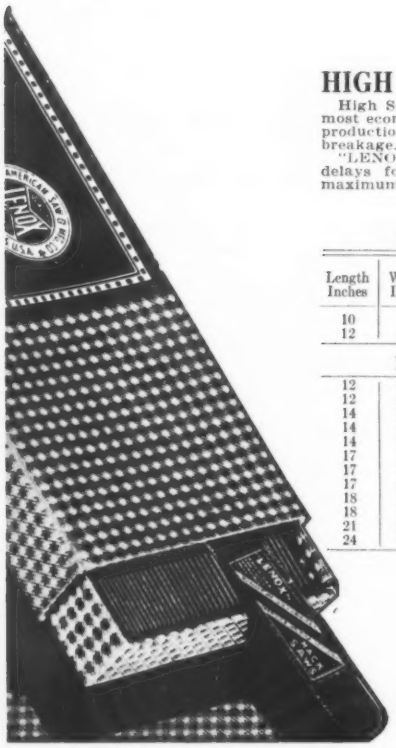
Length Inches	Width Inches	Gauge Thickness	Teeth per Inch				List Price per Gross
12	5/8	21=.032	..	..	14	18	$16.20
12	3/4	21=.032	..	..	14	18	19.44

Heavy Power Blades

"Lenox" Heavy Power Blades are built to fill every requirement of the modern high speed hack saw machine. For straight cutting, durability, and uniformity, they are unexcelled.

Standard List
Heavy Power Blades

Length Inches	Width Inches	Gauge Thickness	Teeth per Inch			List Price per Gross
10	3/4	18=.049	..	10	..	$20.40
12	3/4	18=.049	..	10	14	24.48
12	1	18=.049	..	10	14	32.64
14	3/4	18=.049	..	10	14	28.56
14	1	18=.049	..	10	14	38.08
14	1 1/4	16=.065	4	6	10	58.80
17	1	18=.049	..	10	14	46.24
17	1 1/4	16=.065	4	6	10	71.40
18	1 1/4	16=.065	..	6	10	75.60
21	1 1/2	16=.065	4	6	10	105.84
24	1 1/2	16=.065	..	6	10	120.96



HIGH SPEED STEEL Hack Saws

High Speed Steel "LENOX" Blades are the most economical hack saws to use on quantity production. Their durable toughness avoids breakage.

"LENOX" reduce costs per cut by eliminating delays for changing blades and permitting maximum saw speeds at all times.

Standard List
HIGH SPEED Hand Blades

Length Inches	Width Inches	Gauge Thickness	Teeth per Inch				List Price per Gross
10	9/16	23=.025	..	18	24	32	$40.32
12	9/16	23=.025	14	18	24	32	48.96

HIGH SPEED Power Blades

12	1	18=.049	..	..	..	14	$172.80
12	1	16=.065	..	6	10	..	172.80
14	1	18=.049	..	..	..	14	201.60
14	1	16=.065	..	6	10	..	201.60
14	1 1/4	16=.065	4	6	10	..	252.00
17	1	18=.049	..	..	..	14	244.80
17	1	16=.065	..	6	10	..	244.80
17	1 1/4	16=.065	4	6	10	..	306.00
18	1	16=.065	..	..	10	..	259.20
18	1 1/4	16=.065	4	6	..	..	324.00
21	1 1/2	16=.065	4	6	10	..	453.60
24	1 1/2	16=.065	..	6	10	..	518.40

***This plaid box* identifies hack saws whose *performance* and *uniformity* have never been excelled.**

American Saw & Mfg. Co.
Springfield, Mass., U. S. A.

BLU-MOL
MOLYBDENUM
THE OUTSTANDING HACK SAW ACHIEVEMENT

FOCUSES DISTRIBUTOR ATTENTION ON THE
MILLERS FALLS
COMPLETE LINE OF
TUNGSTEN MOLYBDENUM AND HIGH SPEED BLADES

IT'S WELL WORTH LOOKING INTO
MILLERS FALLS COMPANY
GREENFIELD, MASS.

Saws, Hack (Blades)

American Saw & Mfg. Co., Springfield, Mass.
Arion Steel Co., The, Boston, Mass.
Armstrong-Blum Mfg. Co., Chicago, Ill.

(Continued on Page 201)

VICTOR "MOLY"
THE ORIGINAL MOLYBDENUM
HACK SAW BLADES

They outcut, outlast, outclass and outsell all competition because they do most work per dollar, therefore cost least.

VICTOR SAW WORKS, INC.
MIDDLETOWN, N. Y.
Sold only through Distributors

1006B

For Street Addresses of Manufacturers See the "Names and Addresses" Section

Barnes Hack Saw Blades

Made from Real Hack Saw Steel and Made as Hack Saws Should Be Made

The Barnes line is complete—
RED ARROW high speed steel hand and power blades.
Barnes Special Unbreakable hand blades.
Barnes Flexible Tungsten hand blades.
Barnes All Hard Tungsten hand and power blades.
Barnes Junior frames and blades.
Barnes Hard Edge Metal Cutting Band saws.

Prompt service on distributors' orders

W. O. BARNES CO., INC.
1297 Terminal Ave. Detroit, Mich.
and Leading Jobbers Everywhere

Positively Unbreakable!

MARVEL
High - Speed - Edge
HACK SAW BLADES

Combine the best features of all other types

—have the weakness of none. Long-lasting, fast-cutting genuine 18% Tungsten High-Speed-Steel Cutting edge made unbreakable by patented electric weld to alloy steel back. Box for box they out-cut any other blade, assure continuous operation, prevent accidents—are shatter proof. Cost no more than ordinary High-Speed Steel Saws.
Write for Catalog Sheets

HIGH-SPEED-EDGE MARVEL ARMSTRONG-BLUM MFG. CO. CHICAGO U.S.A.

Armstrong-Blum Mfg. Co.
"The Hack Saw People"
339 N. Francisco Ave.,
Chicago, U. S. A.

Saws, Hack (Blades)

(Continued from Page 200)

Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Co., Inc., Detroit, Mich.
Clemson Bros., Middletown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Great Neck Saw Mfrs., Inc., Great Neck, N. Y.
Millers Falls Co., Greenfield, Mass.

(Continued on Page 202)

STAR

HACK SAW BLADES
HAND AND POWER
"MOLY" HEAVY DUTY, TUNGSTEN AND HIGH SPEED STEEL

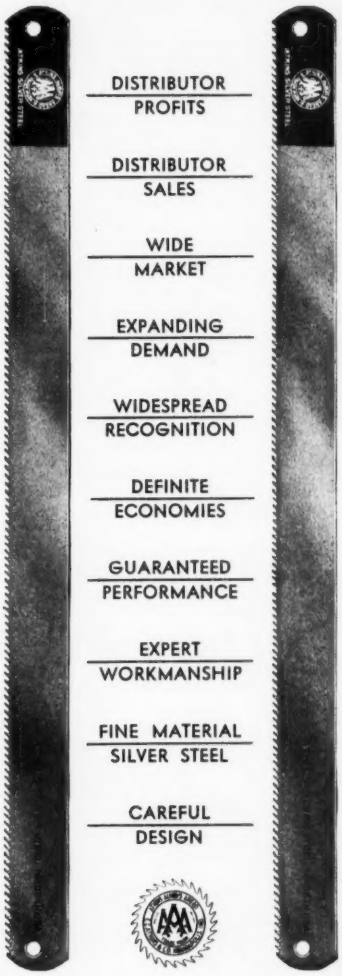
CLEMSON BROS., Inc.
MIDDLETOWN, N. Y.
Sold only through Distributors

1006A

Refer to the
"Trade Name Index"
for trade names which are different from the company's name

ATKINS SILVER STEEL SAWS

BLUE END



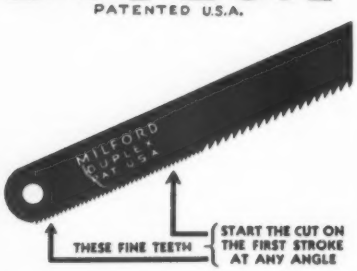
Not a weak rung in the sales ladder of ATKINS SILVER STEEL Hacksaws. Manufacturers, machine shops, textile mills, garages—all prefer this blade with the *Blue End* which cuts more metal than any other. Distributors handling SILVER STEEL Hacksaws are increasing sales—and *profits.*

E. C. ATKINS AND COMPANY
420 So. Illinois St.
INDIANAPOLIS, IND.

MILFORD
REZISTOR

HIGH SPEED CUTTING

MILFORD
DUPLEX
PATENTED U.S.A.



THE EASY STARTING HACK SAW BLADE

Note these SEVEN Outstanding Features

1 Starts cut at any angle.
2 Teeth will not catch in corners.
3 Starts quickly with a full cutting stroke.
4 Reduces cutting time.
5 No scraping to begin cut.
6 Will not slip off cutting line.
7 Distributes wear full length of blade.

THE HENRY G. THOMPSON & SON CO.
NEW HAVEN, CONN.

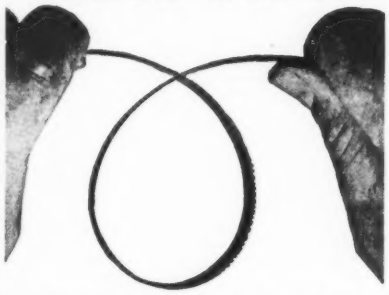
Saws, Hack (Blades)

(Continued from Page 201)

Napier Saw Works, Inc., Middletown, N. Y.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Spartan Saw Works, Inc., Springfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.
Thompson, Henry G., & Son Co., The, New Haven, Conn.
Victor Saw Works, Inc., Middletown, N. Y.

It takes outright and intentional abuse to break this improved type of hack saw blades.

ARION
TRIPLE-IFE
HACK SAWS



This guaranteed blade

will not break or strip and will outwear and outlast all other blades.

Your customers will adopt this blade after a trial order.

TRIPLE-IFE BLADES mean more sales and better profits.

Dealers: Your territory may still be open. Why not ask us about our exclusive sales proposition?

THE ARION STEEL COMPANY
261 Franklin Street
Boston, Massachusetts

MONARCH
HACK SAWS
MADE IN THE UNITED STATES

TOUGH, durable blades made from higher grade Tungsten.

Flexible Blades, with hardened cutting edge, for plumbers, electricians and general use.

All Hard Blades, for machinists and shop use.

They cut fast and easily and are made in the following sizes:

Length & width	Thickness		Teeth per Inch			
8x½"	.025		18	24	32	
10x½"	.025	14	18	24	32	
12x½"	.025	14	18	24	32	
12x⅝"	.025	14	18	24	32	
12x⅝"	.032	14	18	24		All hard only
12x¾"	.032	14	18			
12x¾"	.049	14	18			
12x1"	.049	14	18			

DISTRIBUTORS

MONARCH Hack Saws will fit into your line and soon make a place for themselves. Get our distributors' prices and have something **new** to offer your trade.

GREAT NECK
SAW MANUFACTURERS, INC.
Great Neck, N. Y.

Chicago Representative, H. E. Barton Tool Co.
100 S. Jefferson St., Chicago, Ill.

Distributors---

Are ALL Your Salesmen
Receiving MILL SUPPLIES regularly?

If not---

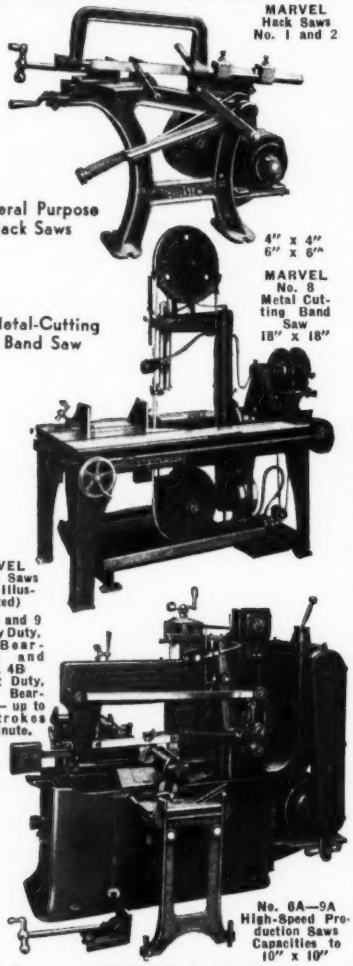
Why not take advantage of our interesting group subscription plan for mill supply houses?

MILL SUPPLIES
"The Magazine of Industrial Distribution"

MARVEL
Hack Saws and Sawing Machines

A most complete, most advanced line of Hack Saws and Metal Sawing Machines. Each is an outstanding unit. All have innumerable improved construction and operating features. They range from small inexpensive shop saws to fully automatic high-speed production saws that feed, measure, cut, count and stop—do the work of several men with ordinary machines.

Detailed Bulletins are available on all types.



Write for Catalog Sheets

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
339 N. Francisco Ave., CHICAGO

Saws, Hack (Machine)

Arion Steel Co., The, Boston, Mass.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Clark, James, Jr., Electric Co., Louisville, Ky.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Racine Tool & Machine Co., Racine, Wis.
Robertson, W., Machine & Foundry Co., Buffalo, N. Y.
Sandvik Saw & Tool Corp., Minneapolis.

Saws, Hack, Rotary

Armstrong-Blum Mfg. Co., Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Misener Mfg. Co., Inc., Syracuse, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
U. S. Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Saws, Hand

Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Co., Inc., Detroit, Mich. (Including butchers')
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Hand, Electric

Atkins, E. C., and Co., Indianapolis, Ind.
Black & Decker Mfg. Co., The, Towson, Md.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Portable Power Tool Corp., Warsaw, Ind.
Porter-Cable-Hutchinson Corp., Syracuse.
Ryerson, Joseph T., & Son, Inc., Chicago.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wallace, J. D., & Co., Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Hole

Armstrong-Blum Mfg. Co., Chicago, Ill.
Black & Decker Mfg. Co., Towson, Md.

Saws, Ice

Acme-Detroit Saw Corp., Detroit, Mich.
Atkins, E. C., and Co., Indianapolis, Ind.
Curtis Pneumatic Machinery Co., St. Louis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Sandvik Saw & Tool Corp., Minneapolis.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill. (Dry ice)
Wappat, Inc., Pittsburgh, Pa.

Saws, Jig, Electric

Beebe Bros., Seattle, Wash.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ruleta Co., Inc., New York, N. Y.
Speedway Mfg. Co., Cicero, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.

Saws, Metal Slitting

Alvord-Polk Tool Co., Millersburg, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Jones Superior Machine Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Twist Drill & Tool Co., Detroit.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Standard Tool Co., Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Saws, Mitre, Circular

Acme-Detroit Saw Corp., Detroit, Mich.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chattanooga Saw Works, Chattanooga, Tenn.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.

MARVEL
HOLE SAWS

High-Speed -Edge

For large holes at low cost. Outcut, outlast all other hole saws. Handle a far greater range of work. Combine fast-cutting, long-lasting quality of High Speed Steel with an UNBREAKABLE, shatter-proof characteristic. Have sufficient strength for production work on electric drills and DRILL PRESSES—have sufficient set for deep drilling. Sizes from ¾" to 4⅛". These new type tools increase the capacity of any drill press.

Write for Circular

ARMSTRONG-BLUM MFG. CO.
"The Hack Saw People"
339 N. Francisco Ave., Chicago, U.S.A.

Lippert, E. T., Saw Co., Pittsburgh, Pa.
Milwaukee Electric Tool Corp., Milwaukee.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Skilsaw, Inc., Chicago, Ill.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wappat, Inc., Pittsburgh, Pa.

Saws, Mitre Box

Atkins, E. C., and Co., Indianapolis, Ind.
Barber-Colman Co., Rockford, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ingersoll-Rand Co., New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Millers Falls Co., Greenfield, Mass.
Ohlen-Bishop Co., The, Columbus, Ohio.
Standard Tool Co., Cleveland, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Pneumatic

Reed-Prentice Corp., Worcester, Mass.

Saws, Rail

Aldon Co., The, Chicago, Ill.
Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. O., Co., Inc., Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Racine Tool & Machine Co., Racine, Wis.
Ryerson, Joseph T., & Son, Inc., Chicago.
Swett, Frank W., & Son, Chicago, Ill.
Syntron Co., Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.

Saws, Rift

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Filer & Stowell Co., The, Milwaukee, Wis.
Hoe, R. & Co., Inc., Bronx, New York, N. Y.
Ohlen-Bishop Co., The, Columbus, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Rip, Machine

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chattanooga Machinery Co., Chattanooga, Tenn.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Filer & Stowell Co., The, Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hermance Machine Co., Williamsport, Pa. (Chain and roll feed)
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Master Woodworker Mfg. Co., Detroit.
Memphis Machine Works, Memphis, Tenn.

Moak Machine & Tool Co., Port Huron, Mich.
Mountville Mfg. Co., Mountville, Pa.
Northfield Foundry & Machine Co., Northfield, Minn.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Sandvik Saw & Tool Corp., Minneapolis, Minn.
Swett, Frank F., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wood, H. C., Machine Works, San Francisco, Calif.

Saws, Scroll

Atkins, E. C., and Co., Indianapolis, Ind.
Barnes, W. F., & John, Co., Rockford, Ill.
Beach Mfg. Co., Montrose, Pa.
Champion Blower and Forge Co., Lancaster, Pa.
Colladay Machine Works, Philadelphia, Pa.
Delta Mfg. Co., Milwaukee, Wis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Heston & Anderson, Fairfield, Iowa.
Holcomb, A. L., Co., Grand Rapids, Mich.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Racine Tool & Machine Co., Racine, Wis.
Ruleta Co., Inc., New York, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Saws, Shingle

Atkins, E. C., and Co., Indianapolis, Ind.
Chattanooga Saw Works, Chattanooga, Tenn.
Curtis Pneumatic Machinery Co., St. Louis.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Clifton Hills, Chattanooga, Tenn.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Sandvik Saw & Tool Corp., Minneapolis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Saws, Slotting

Atkins, E. C., and Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Ideal Commutator Dresser Co., Sycamore, Ill. (Commutator mica)
Portable Power Tool Co., Warsaw, Ind.
Pratt & Whitney Co., Hartford, Conn.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.
Union Twist Drill Co., Athol, Mass.

Saws, Stone Cutting

Atkins, E. C., and Co., Indianapolis, Ind.
Dallett Co., The, Philadelphia, Pa.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Mall Tool Co., Chicago, Ill.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Ohlen-Bishop Co., The, Columbus, Ohio.
Porter-Cable-Hutchinson Corp., Syracuse.
Portable Power Tool Corp., Warsaw, Ind.
Racine Tool & Machine Co., Racine, Wis.
Simonds Saw and Steel Co., Fitchburg, Mass.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Swett, Frank W., & Son, Chicago, Ill.
Wappat, Inc., Pittsburgh, Pa.

Saws, Swing, Cut-Off

Acme-Detroit Saw Corp., Detroit, Mich.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Bell Machine Co., The, Oshkosh, Wis.
Chain Belt Co., Milwaukee, Wis.
Chattanooga Saw Works, Chattanooga, Tenn.
Colladay Machine Works, Philadelphia, Pa.
DeLoach Mill Mfg. Co., Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Heston & Anderson, Fairfield, Iowa.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Lane Mfg. Co., Montpelier, Vt.
Master Woodworker Mfg. Co., Detroit.
Memphis Machine Works, Memphis, Tenn.
Miller Machine Works, Springs, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Northfield Foundry & Machine Co., Northfield, Minn.
Ohlen-Bishop Co., The, Columbus, Ohio.
Porter-Cable-Hutchinson Corp., Syracuse.
Portable Power Tool Corp., Warsaw, Ind.
Swett, Frank W., & Son, Chicago, Ill.
United States Machine Co., Williamsport, Pa.
Wallace, J. D., & Co., Chicago, Ill.

Saws, Tube and Pipe Cutting

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Jones Superior Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Red Star Products Corp., Cleveland, Ohio.
Swett, Frank W., & Son, Chicago, Ill.
Thompson, Henry G., & Son Co., The, New Haven, Conn.

Saws, Veneer

Atkins, E. C., and Co., Indianapolis, Ind.
Beach Mfg. Co., Montrose, Pa.
Chattanooga Saw Works, Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Hoe, R., & Co., Inc., Bronx, New York, N. Y.
Jones Superior Machine Co., Chicago, Ill.
Ohlen-Bishop Co., The, Columbus, Ohio.
Portable Power Tool Corp., Warsaw, Ind.
Simonds Saw and Steel Co., Fitchburg, Mass.
Swett, Frank W., & Son, Chicago, Ill.

Scaffolding, Steel, Adjustable

Patent Scaffolding Co., The, Chicago, Ill.
Portable Power Tool Corp., Warsaw, Ind.
Toledo Pressed Steel Co., The, Toledo, O.

Scaffolding, Wood, Adjustable

Patent Scaffolding Co., The, Chicago, Ill.
Rich Pump and Ladder Co., The, Cincinnati.

Scales

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Fairbanks Co., The, New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Kron Scale Co., The, Bridgeport, Conn.
Merrick Scale Mfg. Co., Passaic, N. J.
Streeter-Amet Co., Chicago, Ill.
Toledo Scale Co., Toledo, Ohio.

Scoops

(See "Shovels, Scoops and Spades")

Scrapers, Bearing

American Swiss File & Tool Co., Elizabeth, N. J.
Anderson Bros. Mfg. Co., Rockford, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Grobet File Corp. of America, New York.
Heller Bros. Co., Newark, N. J.
Kraeuter & Co., Inc., Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn.
Millers Falls Co., Greenfield, Mass.
Mound Tool Co., St. Louis, Mo.
Plomb Tool Co., Los Angeles, Calif.
Stevens, Walden, Inc., Worcester, Mass.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.

Scrapers, Belt

Atkins, E. C., and Co., Indianapolis, Ind.
Cook, H. N., Belting Co., San Francisco.
Graton & Knight Co., Worcester, Mass.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Manufacturers' Belt Hook Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Scrapers, Box

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Disston, Henry, & Sons, Inc., Philadelphia.
Drew, C., & Co., Kingston, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

Scrapers, Cabinet Makers'

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Grobet File Corp. of America, New York.
Millers Falls Co., Greenfield, Mass.
Ohlen-Bishop Co., The, Columbus, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.

Scrapers, Carbon

Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.

Scrapers, Drag

American Hoist & Derrick Co., St. Paul.
American Steel Scraper Co., The, Sidney, Ohio.
Beaumont, R. H., Co., Philadelphia, Pa.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Jackson Manufacturing Co., Harrisburg, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Sidney Steel Scraper Co., The, Sidney, O.
Stephens-Adamson Mfg. Co., Aurora Ill.
Toledo Wheelbarrow Co., The, Toledo, Ohio.

Scrapers, Flue

Advance Packing & Supply Co., Chicago.
Chesterton, A. W., Co., Boston, Mass.
Crowell, D. J., & Crowell, F. G., Buffalo.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Osborn Manufacturing Co., Cleveland, O.
Pierce, Wm. B., Co., The Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Worcester Brush & Scraper Co., Division Mason-Worcester Co., Worcester, Mass.

Scrapers, Pipe

Illinois Scully Steel Warehouse Co., Chicago, Ill.
Newark Brush & Scraper Co., Irvington, N. J.

Scrapers, Pneumatic

Dallett Co., The, Philadelphia, Pa.
Fairbanks Co., The, New York, N. Y.

Screen, Wire

American Brass Co., The, American Metal Hose Branch. Waterbury, Conn.
Cambridge Wire Cloth Co., Cambridge, Md.
Cleveland Wire Cloth & Mfg. Co., The, Cleveland, Ohio.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Roebling's, John A., Sons Co., Trenton, N. J.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Screens, Revolving

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Harrington & King Perforating Co., Chicago, Ill.
The Jeffrey Manufacturing Co., Columbus, Ohio.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Screens, Vibrating

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Huron Industries, Inc., Alpena, Mich.
Jeffrey-Traylor Division of The Jeffrey Mfg. Co., Columbus, Ohio.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Screens, Wire, for Coal, Sand, Gravel, Etc.

Beaumont, R. H., Co., Philadelphia, Pa. (Coke screens)
Cambridge Wire Cloth Co., Cambridge, Md.
Huron Industries, Inc., Alpena, Mich.
The Jeffrey Manufacturing Co., Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Manufacturers Equipment Co., The, Dayton, Ohio.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth, Newark, N. J.
Roebling's John A., Sons Co., Trenton, N. J.
Sackett, H. B., Screen & Chute Co., Chicago.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Screens, Wire and Perforated Metal

Cambridge Wire Cloth Co., Cambridge, Md.
Harrington & King Perforating Co., The, Chicago, Ill.
Johnston & Chapman Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Stephens, Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire Spencer Steel Co., New York.

Screw Blanks

(See "Blanks, Nut and Screw")

Screw Machines

(See "Machines, Screw")

Screw (Cap) Threading Machines

(See "Machines, Threading, Bolt and Cap Screw")

Screwdriver Bits

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Conn. Valley Mfg. Co., Centerbrook, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Independent Pneumatic Tool Co., Chicago.
Irwin Auger Bit Co., Wilmington, Ohio.
Kilborn and Bishop Co., The, New Haven, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Schauer Machine Co., The, Cincinnati, O.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stanley Works, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago.

Screwdrivers

American Saw & Mfg. Co., Springfield, Mass.
American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Heller Brothers Co., Newark, N. J.
Hinsdale Mfg. Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Sargent & Co., New Haven, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Trimont Mfg. Co., Roxbury, Boston.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.

Screwdrivers, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Clark, James, Jr., Electric Co., Louisville.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Louisville Electric Manufacturing Co., Louisville, Ky.
Milwaukee Electric Tool Corp., Milwaukee.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
United States Electrical Tool Co., The, Cinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.

Screwdrivers, Electricians'

American Swiss File & Tool Co., Elizabeth, N. J.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Hunt, Geo. L., Mfg. Co., Boscobel, Wis.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Washburn Co., The, Worcester, Mass.

Screwdrivers, Offset

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Tuck Mfg. Co., Brockton, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.

Screwdrivers, Power

(See "Machines, Screwdriving")

Screwdrivers, Ratchet

American Swiss File & Tool Co., Elizabeth, N. J.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.

Screwdrivers, Screw Holding

Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
North Bros. Mfg. Co., Philadelphia, Pa.

Screwdrivers, Spiral

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

Screws, Bench

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
National Screw & Mfg. Co., The, Cleveland.
Sargent & Co., New Haven, Conn.

Screws, Brass

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Wood Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Economy Machine Products Co., Chicago.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
Holo-Krome Screw Corp., Bristol, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Parker, Charles, Co., The, Meriden, Conn.
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford Ill.
Sargent & Co., New Haven, Conn.
Scovill Mfg. Co., Waterbury, Conn.
Torrington Mfg. Co., The, Torrington, Conn.
Washburn Co., The, Worcester, Mass.

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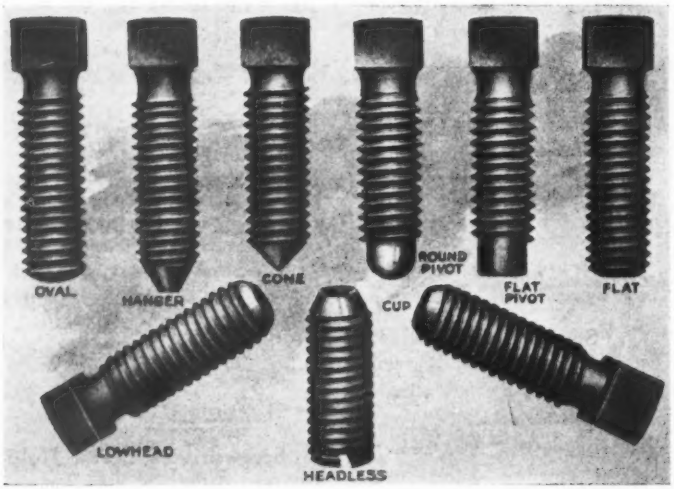
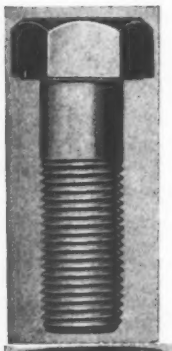
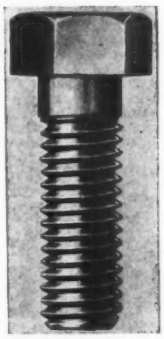
MILL SUPPLIES

OTTEMILLER

MILLED SCREW MACHINED PRODUCTS







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are milled from bar or rod on modern automatic multiple spindle screw machines. Our screws are turned, threaded and faced under head at the same time and before being cut off. This makes face, thread and body true. Complete stock of cap and set screws, coupling bolts, milled studs and Dardelet thread screws. Write for catalog and distributors' terms. Also upset head products.

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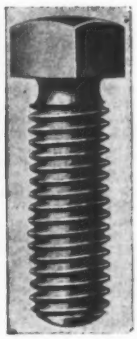
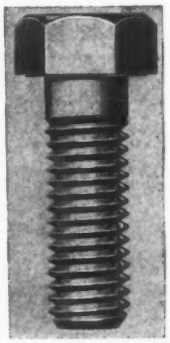
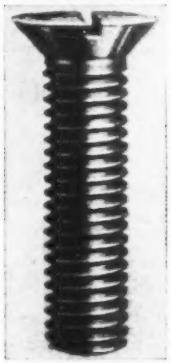
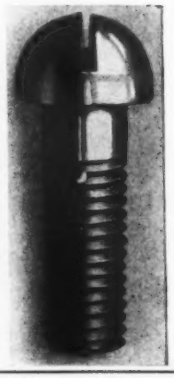
YORK, PA.

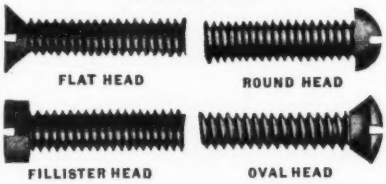








ROCKFORD
MACHINE SCREWS
(Steel and Brass)



Shipped quickly in extra strong cartons. Let us have your inquiry for distributor prices.

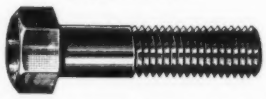
ROCKFORD SCREW PRODUCTS CO.
2501 Ninth Street - Rockford, Illinois

Screws—Cap, Machine and Set

Acme Machine Products Co., Muncie, Ind.
Allen Mfg. Co., The, Hartford, Conn.
American Cap & Set Screw Co., Waukegan, Ill.
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Chandler Products Corp., Cleveland, Ohio.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., The, Cleveland, Ohio. (Cap and set only)
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp), Cleveland, Ohio.
Continental Wood Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Eagle Lock Co., Terryville, Conn.
Economy Machine Products Co., Chicago.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.

(Continued on Page 207)

HEXAGON CAP SCREWS
Steel and Brass



Elco Cap Screws have perfectly centered heads, clean fast threads and chamfered points. Made from normalized high carbon steel for increased tensile strength. Large stocks include all sizes up to 1/2" diameter and 4" long for immediate shipment.

ELCO TOOL & SCREW CORP.
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A DEPENDABLE SOURCE

SCREWS	NUTS
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Cap Screws	Semi-Finished Nuts
Set Screws	Wing Nuts
Metal Tapping Screws	Cap Nuts
Thumb Screws	Knurled Nuts

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CHICAGO, ILLINOIS

DISTRIBUTORS:

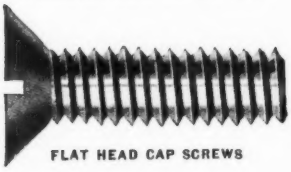
Try "ROCKFORD" for quick service on your requirements for cap and set screws

They are made to the highest standards of quality, accuracy and uniformity on modern, high speed machines. (Our cap screws are made from .30 — .37 normalized steel.)

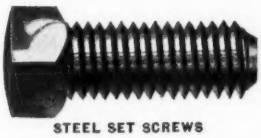
AMERICAN COARSE THREAD HEXAGON HEAD CAP SCREWS

AMERICAN FINE THREAD HEXAGON HEAD CAP SCREWS

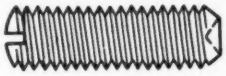
FILLISTER HEAD CAP SCREWS



FLAT HEAD CAP SCREWS



STEEL SET SCREWS



HEADLESS SET SCREWS

Let us also have your inquiries on Wood Screws, Lag Screws and Machine Screws (Brass and Steel; Flat, Round, Oval and Fillister Head).

Our cartons are extra strong.

Write for our complete catalog and our distributor discounts.

DISTRIBUTORS SERVE INDUSTRY ECONOMICALLY

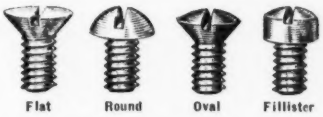
Rockford Screw Products Co.
2501 Ninth Street,
Rockford, Ill.

CAP SCREWS

Standard
Special

THE MONARCH CAP SCREW & MFG. CO.
5906 Park Ave.,
CLEVELAND, OHIO
34 N. Clinton St., Chicago
74 Murray St., New York

MACHINE SCREWS
Steel and Brass — All Finishes



Flat Round Oval Fillister

Elco Machine Screws have accurate threads, perfect heads, centered slots and a clean finished appearance. The four standard style heads shown above are carried in stock in all standard listed sizes up to 3/8" diameter and 3" long, both plain brass and steel or any desired finish.

ELCO TOOL & SCREW CORP.
1902 Broadway Rockford, Ill.

Screw-Cap, Machine and Set

(Continued from Page 206)

Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Holo-Krome Screw Corp., Bristol, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland, O.
Mid-West Screw Products Co., St. Louis.
Monarch Cap & Screw & Mfg. Co., The, Cleveland, Ohio.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scovill Mfg. Co., Waterbury, Conn.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Superior Screw & Bolt Co., The, Cleveland, Ohio. (Cap only)

Screws, Coach and Lag

Atlas Bolt & Screw Co., The, Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Wood Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Grabler Mfg. Co., Cleveland, Ohio.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Hubbard & Co., Pittsburgh, Pa.
Lamson & Sessions Co., The, Cleveland, O.
Milton Manufacturing Co., The, Milton, Pa.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Rockford Screw Products Co., Rockford, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Superior Screw & Bolt Co., The, Cleveland.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

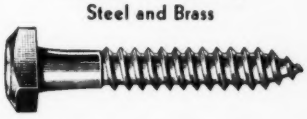
CHANDLER CAP SCREWS

A complete assortment, stocked for immediate shipment.

—WRITE—

CHANDLER PRODUCTS CORPORATION
Chardon Road, Cleveland, O.

LAG SCREWS
Steel and Brass



Elco Lag Screws have uniform square heads, sharp gimlet points, and clean threads. Made from higher carbon content steel, Elco Lag Screws have surplus strength. Sizes carried in stock range from 1/4" to 1/2" diameter, and 1" to 4 1/2" in length.

ELCO TOOL & SCREW CORP.
1902 Broadway Rockford, Ill.

"Names and Addresses" Section Starts on Page 293

"Trade Name Index" Starts on Page 269

"Index to Advertisers" Starts on Page 5

DRIVE SCREWS
For Use in Wood

Flat Hd. Cut Slot | Rd. Head | Regular Hd. Struck Slot | Oval Rd. | Rd. Hd. Slotless

Drive Screws, like nails, can be speedily driven with a hammer but have far greater holding power. They are regularly made in steel only, and with the standard struck slot style of head. Cot slot and Slotless Drive Screws are made to order, usually requiring about 10 days or 2 weeks. Can also be furnished in brass if desired.

ELCO TOOL & SCREW CORP.
1902 Broadway Rockford, Ill.

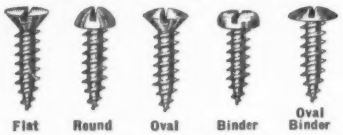
Screws, Collar

Armstrong Mfg. Co., Bridgeport, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
National Screw & Mfg. Co., The, Cleveland.
Ottemiller, Wm. H., Co., Inc., The, York, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Screws, Drive

American Screw Co., Providence, R. I.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.

SHEET METAL SCREWS
Case Hardened — All Finishes



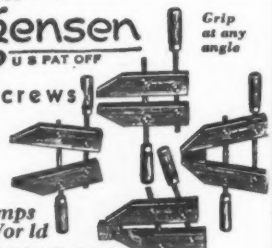
Flat | Round | Oval | Binder | Oval Binder

Elco Case Hardened Sheet Metal Screws are carried in stock in the standard head styles shown above. Rigid inspections and laboratory control of production insure satisfaction on even the most severe assembly jobs. They can be furnished plain or in any finish desired.

Write for samples.

ELCO TOOL & SCREW CORP.
1902 Broadway Rockford, Ill.

TRADE MARK
Jorgensen
REG U S PAT OFF
Handscrews



Grip at any angle

Most Widely Used Clamps in the World

Widely imitated but in appearance only. Jaws of Genuine Jorgensens do not slip, spring or split; are made from selected grain maple, are specially seasoned. Spindles have right-left threads that cut tightening time in half. Handles will not loosen; swivel nuts never shear. Genuine Jorgensen Clamps give lifetime service—build business.

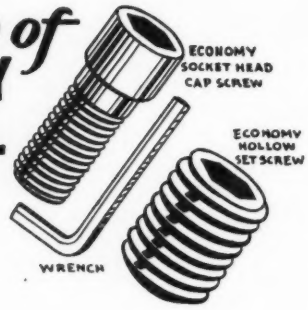
Standard Clamps of Industry

Write for Catalog Sheets

ADJUSTABLE CLAMP CO.
The Clamp Folks
413 N. Ashland Av., Chicago, U.S.A.

ECONOMY PRODUCTS

Made of ALLOY STEEL



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MADE WELL—WEAR WELL—SELL WELL

Manufacturers of
HIGH GRADE HOLLOW SET SCREWS---SOCKET HEAD CAP SCREWS---HEADLESS SET SCREWS
● SPECIAL SCREW MACHINE PRODUCTS ●

Write Today for Literature and Display Card!

ECONOMY MACHINE PRODUCTS CO.
5200 LAWRENCE AVE. CHICAGO, ILL.

Continental Wood Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Reed & Prince Mfg. Co., Worcester, Mass.
Republic Steel Corp., Youngstown, Ohio.

Screws, Hand

Adjustable Clamp Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.

Screws, Hanger

Atlas Bolt & Screw Co., The, Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Wood Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.

Screws, Headless

Allen Mfg. Co., The, Hartford, Conn.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Corbin Screw Corp., The, New Britain, Conn.
Economy Machine Products Co., Chicago.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Ferry Cap & Set Screw Co., Cleveland, O.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Holo-Krome Screw Corp., Bristol, Conn.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Lamson & Sessions Co., The, Cleveland, O.
Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Ottemiller, Wm., Co., Inc., The, York, Pa.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Rockford Screw Products Co., Rockford, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Screws, Hook and Eye

California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Everitt Co., The, Boston, Mass.
Harper, H. M., Co., Chicago, Ill.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Republic Steel Corp., Youngstown, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Screws, Jack

(See "Jackscrews")

Screws, Lag

(See "Screws, Coach and Lag")

Screws, Long

(See "Long Screws")

Screws, Machine

(See "Screws—Cap, Machine and Set")

Screws, Press

California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Rochester Machine Screw Co., Rochester.
Tally-Meter Co., Norwich, Conn.

Screws, Set and Cap
(See "Screws—Cap, Machine and Set")

Screws, Set, Hollow, Safety

Acme Machine Products Co., Muncie, Ind.
Allen Mfg. Co., The, Hartford, Conn.
Bristol Co., The, Waterbury, Conn.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Economy Machine Products Co., Chicago.
Haskell, Wm., H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Holo-Krome Screw Corp., Bristol, Conn.

(Continued on Page 210)

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Just drop us a line and we will make every effort to secure for you the data you require

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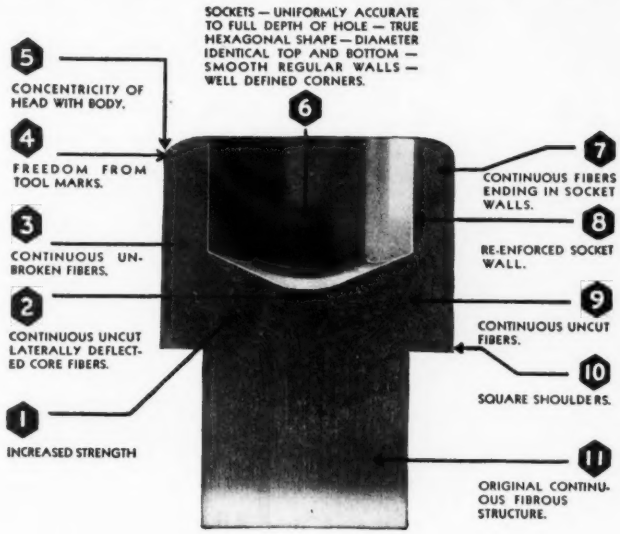
MILL SUPPLIES

"The Magazine of Industrial Distribution"

FIBRO FORGED SCREWS

TRADE MARK

The results of an entirely NEW and Better method of Socket Screw Manufacturing



Patented by

Holo-Krome

FIBRO FORGED Screws

HOLO-KROME FIBRO FORGED TRADE MARK SCREWS

Unfailing Performance "so vitally necessary" to today's high speed, volume production machinery and equipment is assured with FIBRO FORGED Screws. Holo-Krome's entirely new method builds into them the desirable features long sought for by all users of socketed screws.

In combination with this entirely new engineering accomplishment, illustrated above, Holo-Krome further features Controlled Grain Size, and Atmospherically Controlled Electrical Heat Treatment; in substance the complete combination that meets today's demands for *Unfailing Performance.*

The Holo-Krome Screw Corp.,
Bristol, Connecticut, U. S. A.

Manufacturing exclusively
SOCKET SCREWS
SET—CAP—STRIPPER BOLTS—PIPE PLUGS

ALLEN Hollow Screws of Chrome-Molybdenum steel test up 50% stronger, 25% harder than former Allen screws. Designers, engineers, machinery builders protect the performance of their jobs by specifying this new product of Allen cold-drawing. Heat-treated as each size of screw and type of point requires for maximum strength. Accurately threaded, so the screws won't loosen in vibrating parts. Each lot instrument-tested and each screw hand-inspected. All sizes in stock, from ¼" to 1½"; any length or style of point.

ALLEN hollow-head Cap Screws are the precision screws for punch, die and jig work in the shop. Heads finished all over, turned true with the bodies of the screws. Made of Chrome-Molybdenum steel with die-cut threads, accurate in pitch and perfect in lead. Scientifically heat-treated; individually hand-inspected. All sizes from ¼" to 1½"; also "No. 10's." Allen Socket Head Shoulder Screws are available to diemakers and machinery builders for attaching strippers to punches in fast production die work.

Ask for Catalogue of complete line.

Consistently and completely Jobber-distributed.

THE ALLEN MFG. COMPANY
HARTFORD, CONN. U. S. A.

Screws, Set, Hollow, Safety

(Continued from Page 209)

Monarch Cap Screw & Mfg. Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland.
Parker-Kalon Corp., New York, N. Y.
Rochester Machine Screw Co., Rochester.
Ryerson, Joseph T., & Son, Inc., Chicago.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Screws, Shoulder, Socket Head

Allen Mfg. Co., The, Hartford, Conn.
Chicago Screw Co., The, Chicago, Ill.
Economy Machine Products Co., Chicago.
Holo-Krome Screw Corp., The, Bristol, Conn.
Red Devil Manufacturing Co., Bellwood, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Screws, Thumb

Bonney Forge & Tool Works, Allentown, Pa.
California Screw Co., San Francisco, Calif.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Corbin Screw Corp., The, New Britain, Conn.
Eberhard Mfg. Co., Cleveland, Ohio.
Harper, H. M., Co., Chicago, Ill. (Brass)
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Parker-Kalon Corp., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester.
Williams, J. H., & Co., New York, N. Y.

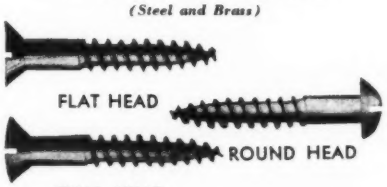
Screws, Washer Head

Acme Machine Products Co., Muncie, Ind.
Atlas Bolt & Screw Co., The, Cleveland, O.
California Screw Co., San Francisco, Calif.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Continental Wood Screw Co., New Bedford, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Everitt Co., The, Boston, Mass.
Hubbell, Harvey, Inc., Bridgeport, Conn.
National Acme Co., The, Cleveland, Ohio.
National Screw & Mfg. Co., The, Cleveland, Ohio.
New England Screw Co., Boston, Mass.
Pheoll Mfg. Co., Chicago, Ill.
Rockford Screw Products Co., Rockford.

Screws, Wood

American Screw Co., Providence, R. I.
Clark Bros. Bolt Co., Milldale, Conn.
Continental Wood Screw Co., New Bedford, Mass.
Corbin Screw Corp., New Britain, Conn.

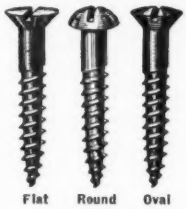
ROCKFORD
WOOD SCREWS
(Steel and Brass)



Shipped quickly in extra strong cartons. Let us have your inquiry for distributor prices.

ROCKFORD SCREW PRODUCTS CO.
2501 Ninth Street - Rockford, Illinois

WOOD SCREWS



Steel, Brass, Bronze, Aluminum, Stainless Steel, Everdur All Finishes

Elco Wood Screws have centered slots, clean cut threads, sharp points, and absolute uniformity. Large stocks of standard sizes in steel and brass are maintained at all times. All plated finishes.

SPEEDized WOOD SCREWS

Speedized Wood Screws are our standard wood screws treated to drive easier and faster. Eliminates breakage and binding even in hard woods. Materially reduces screw-driving costs.

Write for samples.

"Elco Screws are Good Screws"

Elco Tool & Screw Corp.

1902 Broadway Rockford, Ill.

Eagle Lock Co., Terryville, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Heiz & Heiz, Inc., Brooklyn, N. Y.
National Screw & Mfg. Co., The, Cleveland, Ohio.
Parker, Charles Co., The, Meriden, Conn.
Reed & Prince Mfg. Co., Worcester, Mass.
Rockford Screw Products Co., Rockford, Ill.
Sargent & Co., New Haven, Conn.
Washburn Co., The, Worcester, Mass.

Scribers

Goodell-Pratt Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.
Marcy Tool Works, Inc., Putnam, Conn.
Millers Falls Co., Greenfield, Mass.

Separators, Air

Allen & Billmyre Co., Inc., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Economy Machine Products Co., Chicago.

PARKER WOOD SCREWS

A complete line of iron, brass and bronze wood screws in all finishes, styles and sizes. Discounts upon application.

THE CHARLES PARKER CO.

Meriden, Conn.

Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Tessmer Machine & Tool Co., Detroit, Mich.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Separators, Ammonia

Milwaukee Steam Appliance Co., West Allis, Wis.
Swartwout Co., The, Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.

Separators, Moisture and Oil, for Compressed Air Lines

Baker-Hansen Mfg. Co., Alameda, Calif.
Bastian-Blessing Co., Chicago, Ill.
Economy Machine Products Co., Chicago.
Fisher Governor Co., The, Marshalltown, Iowa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago.
Milwaukee Steam Appliance Co., West Allis, Wis.
Paasche Airbrush Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Ruemelin Mfg. Co., Milwaukee, Wis.
Simplex Spray Equipment Co., Chicago, Ill.
Swartwout Co., The, Cleveland, Ohio.
Watts Regulator Co., Lawrence, Mass.
Wright-Austin Co., Detroit, Mich.

Separators, Oil

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Burt Manufacturing Co., The, Akron, O.
Crane Co., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Fisher Governor Co., The, Marshalltown, Iowa.
Kieley & Mueller, Inc., New York, N. Y.
Milwaukee Steam Appliance Co., West Allis, Wis.
Nugent, Wm. W., & Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Separators, Steam

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Milwaukee Steam Appliance Co., West Allis, Wis.
Murray Iron Works Co., Burlington, Iowa.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Wright-Austin Co., Detroit, Mich.

Sets, Bricklayers'

Marshalltown Trowel Co., Marshalltown, Iowa.
Plomb Tool Co., Los Angeles, Calif.

Sets, Generating, Electric

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Century Electric Co., St. Louis, Mo.
Coppus Engineering Corp., Worcester, Mass.
De Laval Steam Turbine Co., Trenton, N. J.
Diehl Mfg. Co., Elizabethport, N. J.
Fairbanks, Morse & Co, Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hoppes Water Wheel Co., The, Springfield, Ohio.
Loane Engineering Co., Baltimore, Md.
Moore Steam Turbine Corp., Wellsville, N. Y.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Sturtevant, B. F., Co., Hyde Park, Boston, Mass.
Troy Engine & Machine Co., Troy, Pa.
Wappat, Inc., Pittsburgh, Pa.

Steam & Oil Separators

The largest number of sizes and types of separators in the world have been developed as a result of our extensive experience of more than 40 years in building separators for all manner of conditions.

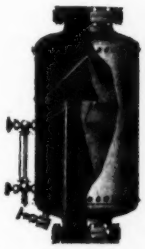
Suitable separators can be selected to fit the exact requirements and piping conditions at reasonable prices. Made in semi-steel, cast steel, riveted and welded construction. Sizes ½" to 48", for vacuum service and pressures up to 650 lbs.

Type "A" Vertical Separator 1½" to 12"

Type "B" Horizontal Separator 1½" to 14"

Type "S" Oil Separator 1½" to 48"

The Type "S" Horizontal, Self-cleaning Oil Separator for removing oil from exhaust steam, has come to be the most extensively used Oil Separator in this country; because of the uniformly efficient and dependable results obtained.



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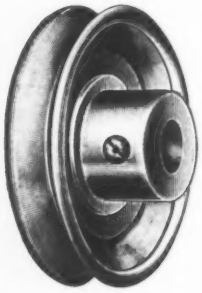

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Take the territory you serve. You'll find "Factory" in the worthwhile manufacturing plants that are your best customers. And you'll find it reaching the key men in charge of operations in those plants—the men who directly or indirectly buy the things you sell. They subscribe to "Factory"—obviously place a real value on what each issue of "Factory" brings them. More of these plant operating men subscribe to "Factory" than any other business publication.

Advertising in "Factory" by the manufacturers of the lines you carry is helping you to make sales.

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SHOVELS SCOOPS and SPADES

A complete line, peculiarly adapted to contractors' and industrial use, and therefore especially suited for distribution through mill supply houses.

Ingersoll Products are equipped with blades made from Ingersoll Steel—the best steel on the market today for shovels. Be sure you get Ingersoll blades by buying your shovels direct from Ingersoll — maker of X-TRA Quality Steel for X-TRA Quality Shovels.

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Dayton Safety Ladder Co., Cincinnati, O.
Harker Mfg. Co., Cincinnati, Ohio.
Mine Safety Appliances Co., Pittsburgh.
Safety Equipment Service Co., Cleveland.

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Marion Malleable Iron Works, Marion, Ind.
National Malleable & Steel Castings Co., Cleveland, Ohio.

Shoes, Protective, Workmen's

Mine Safety Appliances Co., Pittsburgh.
Safety Equipment Service Co., Cleveland.
Safety First Shoe Co., Holliston, Mass.

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American Fork & Hoe Co., Cleveland, Ohio.
Ames-Baldwin-Wyoming Shovel Co., Parkersburg, W. Va.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Plumbers' boring spades)
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Wirt & Knox Co., Philadelphia, Pa. (Snow pushers)
Wood Shovel & Tool Co., Piqua, Ohio.

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American Fork & Hoe Co., Cleveland, Ohio.
Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
Wood Shovel & Tool Co., Piqua, Ohio. (Shovels only)

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Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul.
Jeffrey Manufacturing Co., Columbus, O.
Link-Belt Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Sifter Brush Belting and Brushes

Victor Balata & Textile Belting Co., New York, N. Y.

Sight Feeds, Oil, Independent

Advance Packing & Supply Co., Chicago.
Bowser, S. F., and Co., Fort Wayne, Ind.
Crane Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Nugent, Wm. W., & Co., Chicago, Ill.

Signs, Danger

Handlan-Buck Mfg. Co., St. Louis, Mo.
Mine Safety Appliances Co., Pittsburgh.
Safety Fire Extinguisher Co., The, New York, N. Y.

Sinking Machines, Die

(See "Machines, Die Sinking")

Siphons

(See "Syphons")

Sirens, Electric

Benjamin Electric Manufacturing Co., Des Plaines, Ill.
Federal Electric Co., Inc., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Sterling Siren Fire Alarm Co., Inc., The, Rochester, N. Y.

Skids, Wagon

American Hoist & Derrick Co., St. Paul.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Nutting Truck Co., Faribault, Minn.
West Bend Equipment Corp., West Bend, Wis.

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Leetonia Tool Co., The, Leetonia, Ohio.
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Rock Island Mfg. Co., Rock Island, Ill.
Stanley Rule & Level Plant, The, New Britain, Conn.

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Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Standard Packing & Rubber Co., New York.
Whitehead Bros. Rubber Co., Trenton, N. J.

Sleeves, Drill

(See "Sockets and Sleeves, Drill")

Sleeves, Pipe

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
Northwest Lead Co., Seattle, Wash.

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Columbus McKinnon Chain Corp., Tonawanda, N. Y.

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Factory, Easton, Pa.

Are you buying *too many* types of shovels?

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~~SOLID SHANK~~

~~HOLLOW BACK~~

This new shovel reduces inventory ..... increases turnover!

"Plain-Backs" are Resilient: Wood's New CLOSED BACK has the springiness of the strap shovel and will stand even greater distortion, without visible, permanent "set." No strap welds to pull loose.

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Why have your floors glutted with three lines of shovels, when one line will do the job and do it BETTER!

**The CLOSED BACK averages about 4 pounds in all grades and types of size 2 shovels.*

Caution: This type of shovel was originated by The Wood Shovel and Tool Company and is made on special machinery developed over a period of time. Patents have been applied for on both the shovel and the process. Ordinary welding processes will not produce a shovel with the strength of the genuine WOOD'S CLOSED BACK. Write today for the booklet which fully illustrates and describes WOOD'S CLOSED BACK shovel. Address, The Wood Shovel and Tool Company, Piqua, Ohio.

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**Shovels · spades · scoops*

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Richards-Wilcox Mfg. Co., Aurora, Ill.
Round, David, and Son, Cleveland, Ohio.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

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Macwhyte Co., Kenosha, Wis.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Upson-Walton Co., The, Cleveland, Ohio.

Slitting Machines, Metal

(See "Machines, Metal Slitting")

Slotting Machines

(See "Machines, Screw Slotting" and "Machines, Slotting")

Snippers, Woodworking

Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.

Snips or Shears, Tinners'

Bartlett Manufacturing Co., Detroit, Mich.
Barcalo Mfg. Co., Buffalo, N. Y.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Compton, W. H., Shear Co., The, Newark, N. J.
Crescent Tool Co., Jamestown, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Grobet File Corp. of America, New York.
Heinisch, R., Sons Works, Newark, N. J.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sandvik Saw & Tool Corp., Minneapolis.
Snap-On Tools, Inc., Kenosha, Wis.
Vlchek Tool Co., The, Cleveland, Ohio.
Wave Cut File & Tool Corp., New York.
Wiss, J., & Sons Co., Newark, N. J.

Snubbers, Pressure

Ray Pressure Snubber Co., Charlotte, N. C.

Soap and Cleaners, Hand

Conant & Donelson Co., Conway, Mass.
Flash Chemical Co., Cambridge, Mass.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Harris, A. W., Oil Co., Providence, R. I.
Mine Safety Appliances Co., Pittsburgh.
Pacific Chemical Co., Los Angeles, Calif.
Quigley Co., Inc., New York, N. Y.
Sherwin-Williams Co., Cleveland, Ohio.
Skat Co., The, Hartford, Conn.

Soap, Liquid, and Dispensers

Baum's Castorine Co., Rome, N. Y.
Flash Chemical Co., Cambridge, Mass.
Franklin Oil & Gas Co., The, Bedford, Mass.
Hoegger, Inc., Weehawken, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh.
Morrill, Charles, Inc., New York, N. Y.
Pacific Chemical Co., Los Angeles, Calif.

Soap, Oil

Baum's Castorine Co., Rome, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Franklin Oil & Gas Co., The, Bedford, Ohio.
Harris, A. W., Oil Co., Providence, R. I.
Magie Bros., Chicago, Ill.
Pacific Chemical Co., Los Angeles, Calif.
Sherwin-Williams Co., Cleveland, Ohio.

Soap, Powdered

Baum's Castorine Co., The, Rome, N. Y.
Ensign Products Co., Cleveland, Ohio.
Flash Chemical Co., Cambridge, Mass.
Pacific Chemical Co., Los Angeles, Calif.
Quigley Co., Inc., New York, N. Y.
Skat Co., The, Hartford, Conn.

Sockets and Sleeves, Drill

Cleveland Twist Drill Co., The, Cleveland.
Glenzer, J. C., Co., The, Detroit, Mich.
Keystone Mfg. Co., Buffalo, N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Sampson Tool Co., Inc., New York, N. Y.
Scully-Jones & Co., Tool Division, Chicago.
Standard Tool Co., Cleveland, Ohio.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Union Twist Drill Co., Athol, Mass.
Whitman and Barnes, Inc., Detroit, Mich.

Sockets, Wire Rope

(See "Fittings, Wire Rope")

Softeners, Water

Crane Co., Chicago, Ill.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Meier Electrical and Machine Co., Indianapolis, Ind.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Solder, Aluminum

American Solder & Flux Co., Philadelphia.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Dockson, C. H., Co., Detroit, Mich.
Everhot Mfg. Co., Maywood, Ill.
Gardiner Metal Co., Chicago, Ill.
Great Lakes Chemical Works, Detroit, Mich.
Hewitt Metals Corp., Detroit, Mich.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Marshall Metal Co., Los Angeles, Calif.
Michigan Smelting & Refining Co., Detroit.
National Lead Co., New York, N. Y.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Richards Co., Inc., Boston, Mass.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Solder, Bar

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Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Consolidated Metals Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton, Ohio.
Eagle-Picher Lead Co., The, Chicago, Ill.
Everhot Mfg. Co., Maywood, Ill.
Finn, John, Metal Works, San Francisco.
Frictionless Metal Co., St. Louis, Mo.
Gardiner Metal Co., Chicago, Ill.
Great Lakes Chemical Works, Detroit.
Hewitt Metals Corp., Detroit, Mich.
Kester Solder Co., Chicago, Ill.
McGill Mfg. Co., Valparaiso, Ind.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit.
Murphy Metals Co., Chicago, Ill.
National Lead Co., New York, N. Y.
North American Smelting Co., Inc., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Rochester Lead Works, Rochester, N. Y.
Ryerson, Joseph T., & Son, Chicago, Ill.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.
Wheeling Corrugating Co., Wheeling, W. Va.

Solder, Brazing

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
National Lead Co., New York, N. Y.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Solder, Cast Iron

Consolidated Metals Corp., Detroit, Mich.
Marshall Metal Co., Los Angeles, Calif.
National Lead Co., New York, N. Y.

Solder, Self-Fluxing

American Solder & Flux Co., Philadelphia.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Dunton, M. W., Co., The, Providence, R. I.
Eagle-Picher Lead Co., The, Chicago, Ill.
Gardiner Metal Co., Chicago, Ill.
Great Lakes Chemical Works, Detroit.
Kester Solder Co., Chicago, Ill.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
National Lead Co., New York, N. Y.
Ruby Chemical Co., The, Columbus, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Solder, Silver

Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Dockson, C. H., Co., Detroit, Mich.
Great Lakes Chemical Works, Detroit.
Merchant & Evans Co., Philadelphia, Pa.
Ohlen-Bishop Co., The, Columbus, Ohio.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Solder, Wire

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Consolidated Metals Corp., Detroit, Mich.
Dayton Bronze Bearing Co., The, Dayton.
Eagle-Picher Lead Co., The, Chicago, Ill.
Finn, John, Metal Works, San Francisco.
Gardiner Metal Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Great Lakes Chemical Works, Detroit.
Hewitt Metals Corp., Detroit, Mich.
Kester Solder Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Murphy Metals Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Rochester Lead Works, Rochester, N. Y.
Torchweld Equipment Co., Chicago, Ill.
United American Metals Corp., Brooklyn.
Weldit Acetylene Co., Detroit, Mich.

Soldering Coppers

(See "Coppers and Irons, Soldering")

Soldering Flux

(See "Flux, Soldering—Paste, Stick and Liquid")

Soldering Outfits, Acetylene or Hydrogen

American Solder & Flux Co., Philadelphia.
Bastian-Blessing Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Pittsburgh Thermoline Co., Pittsburgh.
Sight Feed Generator Co., The, Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

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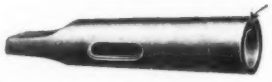
PLAIN & USE-EM-UP
ALL TYPES



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Bastian-Blessing Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hones, Chas. A., Inc., Baldwin, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Soldering Sets

(See "Sets, Soldering")

Soldering Tools, Gas

(See "Tools, Soldering, Gas")

Spacers, Arbor, Milling Machine

Cowles Tool Co., Cleveland, Ohio.
Detroit Stamping Co., Detroit, Mich.
Massachusetts Machine Shop, Inc., Boston.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Sundstrand Machine Tool Co., Rockford, Ill.

Spacers, Pipe

Grabler Mfg. Co., Cleveland, Ohio.
Rochester Machine Screw Co., Rochester, N. Y.

Spades

(See "Shovels, Scoops and Spades")

Spanners, Drop Forged

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Williams, J. H., & Co., New York, N. Y.

Spanners, Hose

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Goodall Rubber Co., Philadelphia, Pa.
Grabler Mfg. Co., Cleveland, Ohio.
Kupferle, John C., Foundry Co., St. Louis.
Robinson Fire Apparatus Mfg. Co, St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Vulcan Tool Mfg. Co., Quincy, Mass.

Speed Reducers

(See "Reducers, Speed")

Speeders, Drill

Buffalo Forge Co., Buffalo, N. Y.

Spikes, Boat

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Brass)
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.

Spikes, Railroad Track

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.

Spikes, Wire and Cut

American Steel & Wire Co., Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.

Splicers, Belt

Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.

Splitters, Nut

Carolus Manufacturing Co., Sterling, Ill.
Porter, H. K., Inc., Everett, Mass.

Splitters, Wood

Filer & Stowell Co., The, Milwaukee, Wis.
Moore & White Co., The, Philadelphia, Pa.
Porter, H. K., Inc., Everett, Mass.

Sprayers—Asphalt, Oil and Tar

Campbell-Hausfield Co., The, Harrison, O.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Quigley Co., Inc., New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.

Sprayers, Insecticide, Portable, Electric

Breuer Electric Manufacturing Co., Chicago, Ill.
Farquhar, A. B., Co., Ltd., York, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Metal Specialties Mfg. Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago, Ill.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Sprayers, Insecticide, Portable, Hand

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Dumore Co., The, Racine, Wis.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Saylor-Beall Manufacturing Co., Detroit.

Sprayers, Mine

Macleod Co., The, Cincinnati, Ohio.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.

Sprayers, Paint, Electric, Portable

Binks Manufacturing Co., Chicago, Ill.
Breuer Electric Manufacturing Co., Chicago, Ill.
Crown Spray Gun Mfg. Co., Los Angeles.
Curtis Pneumatic Machinery Co., St. Louis, Mo.
DeVilbiss Co., The, Toledo, Ohio.
Electric Sprayit Co., The, South Bend, Ind.
H. D. B. Corporation, Chicago, Ill.
Ideal Commutator Dresser Co., Sycamore, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Macleod Co., The, Cincinnati, Ohio.
Metal Specialties Mfg. Co., Chicago, Ill.
Milburn, Alexander, Co., The, Baltimore.
Paasche Airbrush Co., Chicago, Ill.
Saylor-Beall Manufacturing Co., Detroit.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago, Ill.
Spraco, Inc., Somerville, Mass.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Syntron Co., Pittsburgh, Pa.
United States Air Compressor Co., Cleveland, Ohio.

Sprayers, Tree, Whitewash, Etc.

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Asch & Co., Inc., New York, N. Y. (Coal sprayers)
Binks Manufacturing Co., Chicago, Ill.
Campbell-Hausfield Co., The, Harrison, O.
Chapin, R. E., The, Batavia, N. Y.
Coffing Hoist Co., Danville, Ill.
Deming Co., The, Salem, Ohio.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Farquhar, A. B., Co., Ltd., York, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Messmer Brass Co., St. Louis, Mo.
Miller Mfg. Co., Cedar Falls, Iowa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Spraying Booths, Paint

Binks Manufacturing Co., Chicago, Ill.
Cleveland Blow Pipe & Mfg. Co., The, Cleveland, Ohio.
DeVilbiss Co., The, Toledo, Ohio.
H. D. B. Corporation, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Macleod Co., The, Cincinnati, Ohio.
Paasche Airbrush Co., Chicago, Ill.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago.
Spraco, Inc., Somerville, Mass.
Strandwitz and Scott, Inc., Camden, N. J.

Spraying Guns, Paint

(See "Guns, Paint Spraying")

Sprays, Paint

(See "Sprayers" and "Machines and Equipment, Painting and Whitewashing")

Sprays, Water, Automatic

Binks Manufacturing Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
H. D. B. Corporation, Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.

Spring Winders

(See "Winders, Spring")

Springs, Coil

Coleman, Allan J., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Wickwire Spencer Steel Co., New York.

Springs, Pipe Bending

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hunter Pressed Steel Co., Lansdale, Pa.
Rapid Spring Co., The, Pittsburgh, Pa. (For lead pipe)

Springs, Valve

American Steel & Wire Co., Chicago, Ill.
Hunter Pressed Steel Co., Lansdale, Pa.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Victor Instrument Mfg. Co., Inc., New York, N. Y.
Wickwire Spencer Steel Co., New York.

Sprinklers, Fire, Automatic

Central Automatic Sprinkler Co., Philadelphia, Pa.
Dayton Air Compressor Co., The, Dayton, Ohio.
Grinnell Co., Inc., Providence, R. I.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.

Sprinklers, Irrigation

(See "Nozzles and Sprinklers, Irrigation")

Sprinklers, Lawn

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Nelson, L. R., Mfg. Co., Inc., Peoria, Ill.
Penberthy Injector Co., Detroit, Mich.
Roberts Brass Mfg. Co., The, Detroit.
Thermoid Rubber Co., Trenton, N. J.
Turner Brass Works, The, Sycamore, Ill.

Sprockets

(See "Wheels, Sprocket")

Squares, Caliper

Brown & Sharpe Mfg. Co., Providence, R. I.

Squares, Carpenters'

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Stanley Rule & Level Plant, The, New Britain, Conn.
Washburn Co., The, Worcester, Mass.

Squares, Center

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.

Squares, Combination

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Squares, Diemakers'

Brown & Sharpe Mfg. Co., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Simplex Tool Co., Woonsocket, R. I.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Squares, Double

Lufkin Rule Co., The, Saginaw, Mich.

Squares, Draughtmen's "T"

Dietzgen, Eugene, Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.

Squares, Millwrights'

Brown & Sharpe Mfg. Co., Providence, R. I.

Squares, Mitre

Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.

Squares, Try

Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Millers Falls Co., Greenfield, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Squares, Universal

Elwell-Parker Electric Co., The, Cleveland.
Lufkin Rule Co., The, Saginaw, Mich.
Wrought Washer Mfg. Co., Milwaukee.

Squeegees

Elermann Floor Scraper Co., The, Brooklyn, N. Y.
Osborn Manufacturing Co., The, Cleveland.

Stackers

(See "Elevators, Pilers or Stackers, Portable")

Stampings, Steel

Laminated Shim Co., Inc., Long Island City, N. Y.
Permanent Tool & Mfg. Co., The, Dayton, Ohio.
Toledo Pressed Steel Co., The, Toledo, Ohio.

Stamps, Letter and Figure, Steel

Hanson, C. H., Co., The, Chicago, Ill.
Joslin, A. D., Mfg. Co., Manistee, Mich.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Millers Falls Co., Greenfield, Mass.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., The, East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.
Superior Steel Stamp Co., Cleveland, Ohio.

Stands, Assembling, for Machine Shops

Angle Steel Stool Co., Plainwell, Mich.
Moak Machine & Tool Co., Port Huron, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.

Stands and Pulleys, Band Saw

Covel-Hanchett Co., Big Rapids, Mich.
Dodge Manufacturing Corp., Mishawaka, Ind.
Filer & Stowell Co., The, Milwaukee, Wis.
Moak Machine & Tool Co., Port Huron, Mich.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Stands, Barrel or Drum

Pollard Bros. Mfg. Co., Chicago, Ill.
West Bend Equipment Corp., West Bend, Wis.

Stands, Brazing

Turner Brass Works, The, Sycamore, Ill.

Stands, Drill

Clark, James, Jr., Electric Co., Louisville, Ky.
Cleveland Twist Drill Co., The, Cleveland.
Hisey-Wolf Machine Co., The, Cincinnati.
Huot Manufacturing Co., St. Paul, Minn.
Independent Pneumatic Tool Co., Chicago.
National Twist Drill & Tool Co., Detroit.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.
Union Twist Drill Co., Athol, Mass.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Whitman and Barnes, Inc., Detroit, Mich.

Stands, Drill, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Clark, James, Jr., Electric Co., Louisville, Ky.
Dallett Co., The, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Hisey-Wolf Machine Co., The, Cincinnati.
Independent Pneumatic Tool Co., Chicago.
Millers Falls Co., Greenfield, Mass.
Milwaukee Electric Tool Corp., Milwaukee.
Schauer Machine Co., The, Cincinnati, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson, Md.
Wappat, Inc., Pittsburgh, Pa.
Wodack Electric Tool Corp., Chicago, Ill.

Stands, Floor, Power Transmission

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Moak Machine & Tool Co., Port Huron, Mich.
Royersford Foundry & Machine Co., Inc., Royersford, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Stands, Floor, Valve

Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Grinnell Co., Inc., Providence, R. I.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Stands, Grinding Wheel

Atkins, E. C., and Co., Indianapolis, Ind.
Black & Decker Mfg. Co., The, Towson, Md.
Hisey-Wolf Machine Co., The, Cincinnati.
Moak Machine & Tool Co., Port Huron, Mich.
Safety Grinding Wheel & Machine Co., The, Springfield, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Wodack Electric Tool Corp., Chicago, Ill.

Stands, Motor

Champion Blower and Forge Co., Lancaster, Pa.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Sutorbilt Corp., Los Angeles, Calif.

Stands, Mule

Bond Foundry and Machine Co., Manheim, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Stands, Oxygen Tank

Bastian-Blessing Co., Chicago, Ill.

Stands, Range Boiler

American Foundry & Mfg. Co., St. Louis.
Gerard Mfg. Co., Dickson City, Pa.
Kupferle, John C., Foundry Co., St. Louis.
Link-Belt Co., Chicago, Ill.
M & H Valve & Fittings Co., Anniston, Ala.
Richmond Foundry & Manufacturing Co., Richmond, Va.

Stands, Tool

(See "Racks and Stands, Tool")

Stands, Vise, Portable

Armstrong Manufacturing Co., Bridgeport.
Black & Decker Mfg., The, Towson, Md.
Hollands Mfg. Co., Erie, Pa.
Market Forge Co., Everett, Mass.
Martin, H. P., & Sons, Owensboro, Ky.
Nye Tool & Machine Works, The, Chicago.
Ridge Tool Co., The, Elyria, Ohio.
Salem Tool Co., The, Salem, Ohio.
Standard Pressed Steel Co., Jenkintown, Pa.
Western Wire Products Co., St. Louis, Mo.
Williams, J. H., & Co., New York, N. Y.

Staples and Hasps

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass. (Staples only)
Griffin Manufacturing Co., The, Erie, Pa.
Markwell Manufacturing Co., Inc., New York, N. Y.
Sargent & Co., New Haven, Conn.
Tower Mfg. Co., Madison, Ind. (Staples only)

Stay Bolts

Bethlehem Steel Co., Bethlehem, Pa.
California Screw Co., San Francisco, Calif.
Flannery Bolt Co., Pittsburgh, Pa.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Key Boiler Equipment Co., East St. Louis, Ill.
Mockbee, C. M., Co., Cincinnati, Ohio.
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.

Steamers, Thawing, Pipe

(See "Machines and Steamers, Thawing, Pipe")

Steel Mill Products

American Rolling Mill Co., The, Middletown, Ohio. (Ingot iron and steel sheets and plates and spiral welded pipe)
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Frasse, Peter A., & Co., Inc., New York.
Heller Brothers Co., Newark, N. J.
Ingersoll Steel & Disc Co., New Castle, Ind.
Jessop, William, & Sons, Inc., New York, N. Y. (Tool steels)
Jones & Laughlin Steel Corp., Pittsburgh.
Kidd Drawn Steel Co., Aliquippa, Pa. (Key steel [Woodruff] and special shapes)
LaSalle Steel Co., Chicago, Ill. (Shafting and cold finish bar steel)
Ludlum Steel Co., Watervliet, N. Y. (Tool and alloy steel)
Lyon, Conklin & Co., Inc., Baltimore, Md. (Sheet metal)
Pittsburgh Tool Steel Wire Co., Monaca, Pa. (Cold drawn steel—alloy, tool, high speed and special shapes)
Reading Iron Co., Philadelphia, Pa. (Pig, bar, engine bolt, and stay bolt iron)
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sandvik Steel, Inc., New York, N. Y. (Hot rolled steel bars, bands and tubing, cold rolled steel bars and strip, cold drawn bars and tubing)
Simonds Saw and Steel Co., Fitchburg, Mass. (Flat ground stock)
Sheffield Steel Corp., Kansas City, Mo. (Blue annealed sheets, ingots, blooms, billets, plates, etc.)
Timken Roller Bearing Co., The, Canton.
Union Drawn Steel Co., Beaver Falls, Pa. (Cold finished steel)
Wheeling Corrugating Co., Wheeling, W. Va. (Sheet steel products, wire and wire products, roofing, etc.)
Wheeling Steel Corp., Wheeling, W. Va. (Sheet steel, wire and wire products, pipe, roofing, etc.)
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Steels, Butcher

Cleveland File Co., The, Cleveland, Ohio.

Stems, Valve

Bastian-Blessing Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Bridgeport, Conn.
Walworth Co., New York, N. Y.

UMI

ARE YOU MISSING A GOOD BET?

There's a growing demand from Die-makers and Machinists for Flat Ground Stock from which to make jigs, gauges, templates, tools and for other particular jobs. They save time and you make a profit when you sell them.

SIMONDS "RED STREAK" FLAT GROUND STOCK

SIMONDS SAW AND STEEL CO.
Boston, Mass. Chicago, Ill.

Stenciling Brushes
(See "Brushes, Stencil")

Stenciling Materials
Dallett Co., The, Philadelphia, Pa.
Hanson, C. H., Co., The, Chicago, Ill.
Market Forge Co., Everett, Mass.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.

Stencils—Copper, Brass and Zinc
Hanson, C. H., Co., The, Chicago, Ill.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Kautz, Fred C., & Co., Chicago, Ill.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), Kansas City, Mo.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
Moss, Henry, & Co., Inc., Brooklyn, N. Y.
Noble & Westbrook Mfg. Co., East Hartford, Conn.
Pannier Bros. Stamp Co., Pittsburgh, Pa.

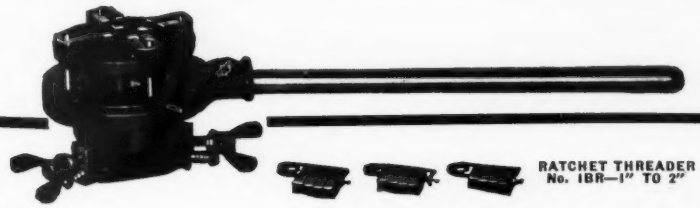
Sticks, Abrasive
(See "Bricks and Sticks, Abrasive")

Sticks, Belt, for Putting Belts on Moving Pulleys
Raniville, F., Co., Grand Rapids, Mich.

Stock, Flat Ground
Brown & Sharpe Mfg. Co., Providence, R. I.
Simonds Saw & Steel Co., Fitchburg, Mass.

Stocks, Die, Adjustable
Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Borden Co., The, Warren, Ohio.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Carpenter, J. M., Tap & Die Co., Detroit.
Conant & Donelson Co., Conway, Mass.
Erie Tool Works, The, Erie, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass. (Round)
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Winter Brothers Co., Inc., Wrentham, Mass.

Stocks, Die, Electric
Borden Co., The, Warren, Ohio.
Crane Co., Chicago, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Wodack Electric Tool Corp., Chicago, Ill.


RATCHET THREADER No. 1BR—1" TO 2"

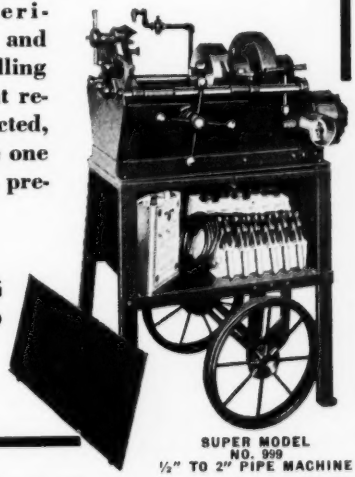
"TOLEDOS"–LEADERS FOR OVER 30 YEARS

Any line of tools with such a record must have more than average quality. "TOLEDOS" have. They are not only the most practical and perfectly designed line of pipe tools on the market today, as they were when first introduced in 1902, but they have built into them an inherent quality of goodness that is recognized by all experienced operators.

"TOLEDO" OPEN-SIDE PIPE VISES. MADE IN THREE SIZES.

No yearly models, but constant improvements during all of these years have put "TOLEDO" far out in front in the manufacture of pipe tools and pipe machines. Today the "TOLEDO" line consists of 23 different models of hand operated pipe threading tools and 6 different models of pipe cutters, handling up to 12" pipe inclusive. There are also pipe reamers, pipe vises, work benches and the most modern and up-to-date line of pipe machines on the market. The "TOLEDO" line is complete, and meets every need.

"TOLEDOS" are specified by experienced operators everywhere and the "TOLEDO" policy of selling only through its distributors at resale prices that are respected, makes the "TOLEDO" line the one line of pipe tools that dealers prefer to stock and sell.


SUPER MODEL NO. 999 ½" TO 2" PIPE MACHINE

THE TOLEDO PIPE THREADING MACHINE CO., TOLEDO, OHIO
NEW YORK OFFICE & DISPLAY
72 LAFAYETTE STREET

"CHIP CHASER" DIE-STOCKS

A compact, convenient line of die-stocks. There are two types: the 3-way type for ⅜", ½" and ¾" pipe and the 1-way ratchet type for ⅛" to ¾" and ½" to 1¼" pipe.

The complete Oster-Williams line includes Stocks and Dies, Pipe and Bolt Threading Machines and Pipe Welding Tools.

OSTER-WILLIAMS
Sales Office: 2041 East 61st St.
CLEVELAND, OHIO, U. S. A.
Factories at Erie, Pa.
and Cleveland, Ohio

Stocks, Die, Ratchet

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Borden Co., The, Warren, Ohio.
Crane Co., Chicago, Ill.
Crown Die & Tool Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Stocks and Dies, Bolt

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Champion Blower and Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Standard Tool Co., Cleveland, Ohio.
Mechanics Tool & Wrench Co., Greenfield, Mass.

Stocks and Dies, Brass Pipe

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Borden Co., The, Warren, Ohio.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Conant & Donelson Co., Conway, Mass.
Crane Co., Chicago, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Walworth Co., New York, N. Y.

Stocks and Dies, Solid

Armstrong Bros. Tool Co., Chicago, Ill.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit.
Champion Blower & Forge Co., Lancaster, Pa.
Crane Co., Chicago, Ill.
Erie Tool Works, The, Erie, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nye Tool & Machine Works, Chicago, Ill.
Oster-Williams, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Reed Manufacturing Co., Erie, Pa.
Russell Mfg. Co., Greenfield, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Walworth Co., New York, N. Y.
Winter Brothers Co., Inc., Wrentham, Mass.

Stocks and Dies, Three and Four-way

Armstrong Manufacturing Co., Bridgeport, Conn.
Champion Blower & Forge Co., Lancaster, Pa.
Crane Co., Chicago, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Sands Mfg. Co., The, Cleveland, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.

Stokers, Mechanical

Illinois Iron & Bolt Co., Carpentersville, Ill.
Link-Belt Co., Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Orr & Sembower, Inc., Reading, Pa.
Vogt Brothers Mfg. Co., Louisville, Ky.

Stone Points

(See "Points, Stone")

Stones, Commutator

Ideal Commutator Dresser Co., Sycamore, Ill.

Stones, Oil

Behr-Manning Corp., Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dietzgen, Eugene, Co., Chicago, Ill.
Goodrich Grinding Wheel Co., Chicago, Ill.
Luther Grinder & Tool Co., Milwaukee.
Norton Co., Worcester, Mass.
Norton Pike Co., Pike, N. H.

Stones, Rubbing and Sharpening

Abrasive Co. (Division of Simonds Saw and Steel Co.) Philadelphia, Pa.
Atkins, E. C., and Co., Indianapolis, Ind.
Behr-Manning Corp., Troy, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Norton Co., Worcester, Mass.
Norton Pike Co., Pike, N. H.
Peninsular Grinding Wheel Co., Detroit.

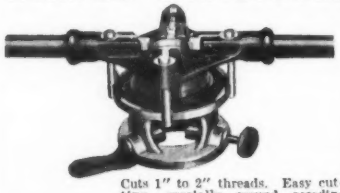
Stools and Chairs, Factory, Steel

Angle Steel Stool Co., Plainwell, Mich.
Chicago Pulley & Shafting Co., Chicago.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Permanent Tool & Mfg. Co., The, Dayton, Ohio.
Pollard Bros. Mfg. Co., Chicago, Ill.
Royal Metal Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

Stoppers, Boiler Tube

(See "Plugs or Stoppers, Boiler Tube")

"LEADER" DIE-STOCKS



Cuts 1" to 2" threads. Easy cutting, specially ground receding dies. Guides center pipe automatically. "Leader" Die-Stocks built in two styles, either plain or with ratchet device built into handle.

The complete Oster-Williams line includes Stocks and Dies, Pipe and Bolt Threading Machines and Pipe Welding Tools.

OSTER-WILLIAMS
Sales Office: 2041 East 61st St.
CLEVELAND, OHIO, U. S. A.
Factories at Erie, Pa.
and Cleveland, Ohio

RIGID
PIPE THREADERS
Rugged, Accurate

RIGID Poster Threaders
Nos. 1 and 1R

RIGID Poster Threaders, No. 1 and 1R, have full-floating posts and new type workholder, (set to size with knurled ring, then put on pipe, tighten with one screw). Four sets of chasers, interchangeable to fit any make of poster die. Threads pipe 1" to 2". List Price—No. 1, $19.00; No. 1R, $24.00.

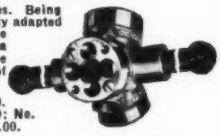
RIGID Ratchet Threaders
Nos. 65 and 65R

Threads pipe 1" to 2". List Price—No. 65, $21.00; No. 65R, $26.00.

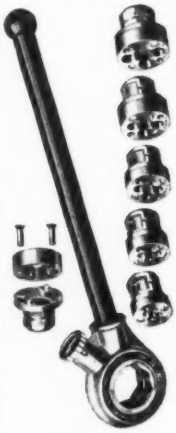
Thread four sizes of pipe with one set of chasers—true accurate threads, all variations—any pipe. Ratchet thumb-lever opens chasers and reverses ratchet—in one turn. Same new type workholder as No. 1R.

RIGID 3-Way Threaders
Nos. 30 and 31

Positive button dies. Being reversible, especially adapted to work where pipe is close to wall—a marked advantage over other types of threaders.



List Price—No. 30, ⅜" to ¾", $12.00; No. 31, ½" to 1", $14.00.



RIGID Ratchet Threaders Nos. 5R and 15R

Die heads snap in from either side held by spring ring in ratchet ring—can't fall out. Dies reverse on head for threading pipe close to wall.

List Price—No. 5R, ⅛" to ¾", $24.75; No. 15R, ⅜" to 1¼", $30.00.

Above prices subject to usual trade discounts.

THE RIDGE TOOL CO.
ELYRIA, OHIO, U. S. A.

Stops, Bench

Cincinnati Tool Co., The, Cincinnati, Ohio.
Goodell-Pratt Co., Greenfield, Mass.
Morrill, Charles, Inc., New York, N. Y.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Wallace, J. D., & Co., Chicago, Ill.

Stops, Brine

(See "Cocks or Stops, Brine")

Stops, Corporation and Waterworks

(See "Cocks or Stops, Corporation and Waterworks")

Storage Outfits, Gasoline

Bowser, S. F., and Co., Fort Wayne, Ind.
Chapin, R. E., The, Batavia, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Stoves, Babbitt Melting

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Ryerson, Joseph T., & Son, Inc., Chicago.
Unique Manufacturing Co., Inc., Chicago.

Straightening Machines

(See "Machines, Bending and Straightening," and "Presses, Straightening")

Strainers, Air and Gas

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Mason Regulator Co., Boston, Mass.
Mueller Co., Decatur, Ill.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
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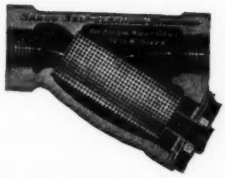
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.

SARCO

Self-cleaning Strainer



Sarco Strainer is suitable for use on steam, gas, water, oil, etc. It has a cast iron body with perforated cylinder placed at such an angle as to offer minimum obstruction to the flow of gas or liquid, but allowing ample cleaning space. The standard screens are made of perforated brass, but where specified, monel or other metal screens can be supplied to practically any specifications.

Can be placed in horizontal or vertical lines or at any angle. A blow-off connection permits the strainer being cleaned instantly merely by opening the valve.

Made in sizes from ¼ to 8 in.; also furnished with brass bodies, caps and screws in sizes ½ to 1 in. inclusive.

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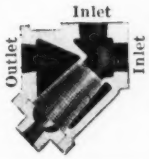

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Imperial Brass Manufacturing Co., Chicago, Ill.
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Lunkenheimer Co., The, Cincinnati, Ohio.
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Leiman Bros., Inc., Newark, N. J.
Leslie Co., Lyndhurst, N. J.
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(See Specific Items)

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Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

Tables, Welding
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Weldit Acetylene Co., Detroit, Mich.
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Pollard Bros. Mfg. Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa.
West Bend Equipment Corp., West Bend, Wis.

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Foxboro Co., The, Foxboro, Mass.
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Markwell Mfg. Co., Inc., New York, N. Y.
Tower Mfg. Co., Madison, Ind. (Steel only)

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Shafer Bearing Corp., Chicago, Ill.
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Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

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Littleford Bros., Cincinnati, Ohio.
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Gilbert & Barker Mfg. Co., Springfield, Mass.
Keystone Boiler & Foundry Co., Landisville, Pa.
Littleford Bros., Cincinnati, Ohio.
Mars Co., The, Aurora, Ill.
Morrison Bros., Dubuque, Iowa.
Niles Steel Tank Co., Niles, Mich.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Tanks and Cabinets, Oil
Bowser, S. F., Co., Fort Wayne, Ind.
Burt Manufacturing Co., The, Akron, Ohio.
Chapin, R. E., Mfg. Works, Batavia, N. Y.
Littleford Bros., Cincinnati, Ohio.
Miller MachineWorks, Springs, Pa.
Nugent, Wm. W., & Co., Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.

Tanks, Paint Spray
Binks Manufacturing Co., Chicago, Ill.
H. D. B. Corporation, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kellogg Manufacturing Co., Rochester, N. Y.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Paasche Airbrush Co., Chicago, Ill.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Simplex Spray Equipment Co., Chicago, Ill.

Tanks, Sand Blast
(See "Sand Blast Machines and Equipment")

Tanks, Storage
Bastian-Morley Co., La Porte, Ind.
Bowser, S. F., & Co., Fort Wayne, Ind.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Creamer Glass Works, Millville, N. J.
Keystone Boiler & Foundry Co., Landisville, Pa.
Littleford Bros., Cincinnati, Ohio.
Mars Co., The, Aurora, Ill.
Miller Machine Works, Springs, Pa.
Morrison Bros., Dubuque, Iowa.
Novelty Steam Boiler Works Co., The, Baltimore, Md.
Nugent, Wm. W., & Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Tap and Drill or Reamer Combined
Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Mueller Co., Decatur, Ill.
Pratt & Whitney Co., Hartford, Conn.
Scully-Jones & Co., Tool Division, Chicago, Ill.
Standard Tool Co., Cleveland, Ohio.

Tape and Wicking, Asbestos
Carey, Philip Co., The, Cincinnati, Ohio.
Chesterton, A. W., Co., Boston, Mass.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Russell Mfg. Co., Middletown, Conn.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Standard Packing & Rubber Co., New York.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Tape, Insulating or Friction
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio. (Asbestos)
Dunton, M. W., Co., The, Providence, R. I.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Garlock Packing Co., The, Palmyra, N. Y.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Johns-Manville Sales Corp., New York.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Mechanical Rubber Co., The, Passaic, N. J.
Minnesota Mining & Mfg. Co., St. Paul.
New York Belting & Packing Co., Passaic, N. J.
Ruberoid Co., The, New York, N. Y.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Standard Packing & Rubber Co., New York.

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Tapes, Measuring

Dietzgen, Eugene, Co., Chicago, Ill.
Keuffel & Esser Co., Hoboken, N. J.
Lufkin Rule Co., The, Saginaw, Mich.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
National Lead Co., New York, N. Y.
Okonite Co., The, Passaic, N. J.
Starrett, L. S., Co., The, Athol, Mass.

Tappers, Electric

Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Ettco Tool Co., Inc., Brooklyn, N. Y.
Independent Pneumatic Tool Co., Chicago.
Louisville Electric Manufacturing Co., Louisville, Ky.
Milwaukee Electric Tool Corp., Milwaukee, Wis.
Procunier Safety Chuck Co., Chicago, Ill.
Schauer Machine Co., The, Cincinnati, O.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, Ohio.
Van Dorn Electric Tool Co., The, Towson Md.

Tappers, Nut

Alvord-Polk Tool Co., Millersburg, Pa.
Barnes Drill Co., Rockford, Ill.
Chicago Pneumatic Tool Co., New York.
Pratt & Whitney Co., Hartford, Conn.

Tapping Attachments

Barnes Drill Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Tool & Engineering Co., Chicago.
Ettco Tool Co., Inc., Brooklyn, N. Y.
Independent Pneumatic Tool Co., Chicago.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Milwaukee Electric Tool Corp., Milwaukee.
Procunier Safety Chuck Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.

Tapping Machines

(See "Machines, Tapping")

Taps—Bit Brace, Blacksmiths', Boiler, Machine Screw, Machine Nut, Machinists' Hand, Patch Bolt, Pulley, Staybolt, Tapper, Etc.

Alvord-Polk Tool Co., Millersburg, Pa.
American Screw Co., Providence, R. I. (Machine screw)
Armstrong Manufacturing Co., Bridgeport, Conn.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Bay State Tap and Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit.
Champion Blower & Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.

Taps, Collapsible

Geometric Tool Co., The, New Haven, Conn.
National Acme Co., The, Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.

Taps, Expanding

Card, S. W., Mfg. Co., Division of Union Twist Drill, Mansfield, Mass.

Taps, Hob

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.

Taps, Mud Plug or Washout

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Winter Brothers, Inc., Wrentham, Mass.

Taps, Pipe

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit.
Conant & Donelson Co., Conway, Mass.
Crane Co., Chicago, Ill.
Geometric Tool Co., The, New Haven, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Sampson Tool Co., Inc., New York, N. Y.
Standard Tool Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.
Winter Brothers, Inc., Wrentham, Mass.

Taps, Serial

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap and Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Stove Bolt

Alvord-Polk Tool Co., Millersburg, Pa.
American Screw Co., Providence, R. I.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford ,Conn.
Standard Tool Co., Cleveland, Ohio.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Taper

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line Vt.
Card S. W. Mfg. Co. Division of Union Twist Drill Co., Mansfield, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mark, Clayton & Co., Chicago, Ill.
Mechanics Tool & Wrench Co. Greenfield, Mass.
National Acme Co., Cleveland, Ohio.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland Ohio.
Wells Mfg. Co., Greenfield, Mass.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Tapper

Alvord-Polk Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass.
Besly, Charles H., & Co., Chicago, Ill.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Carpenter, J. M., Tap & Die Co., Detroit.
Conant & Donelson Co., Conway, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Winter Brothers Co., Inc., Wrentham, Mass.

Taps, Thread, Brass Tubing

Alvord-Polk Tool Co., Millersburg, Pa.
Armstrong Manufacturing Co., Bridgeport, Conn.
Bay State Tap & Die Co., Mansfield, Mass.
Butterfield & Co. Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Conant & Donelson Co., Conway, Mass.
Greenfild Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Winter Brothers Co., Inc., Wrentham, Mass.

Tarpaulins

Atlantic Manufacturing Co., Wilmington, Del.
Hettrick Mfg. Co., Toledo, Ohio.
Goodall Rubber Co., Philadelphia, Pa.
Gross Rubber Co., Sharon, Pa.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.
Ohio Buff & Mfg Co., The, Cincinnati, O.
Upson-Walton Co., Inc., The, Cleveland, O.

Tees, Branch

Acheson Manufacturing Co., Rankin, Pa.
Crane Co., Chicago, Ill.
Grinnell Co., Inc, Providence, R. I.
Kennedy Valve Mfg Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., North Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Walworth Co., New York, N. Y.

Tees, Brass

Acheson Manufacturing Co., Rankin, Pa.
American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Messmer Brass Co., St. Louis, Mo.
Nugent, Wm. W., & Co., Chicago, Ill.
Oberdorfer, M. L., Brass Co., Syracuse.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Tees, Cast Iron

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dick Brothers, Inc., Reading, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg. Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros. Co., Dayton, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Tees, Eccentric

Crane Co., Chicago, Ill.
Grinnell Co, Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kuhns Bros. Co., Dayton, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Semler Co., Jeannette, Pa.
Walworth Co., New York, N. Y.

Tees, Ferrosteel

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
Moak Machine & Tool Co., Port Huron, Mich.
Sarco Co, Inc., New York, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Tees, Hydraulic

Acheson Manufacturing Co, Rankin, Pa.
Belfield, H., & Co., Philadelphia, Pa.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Pittsburgh Valve & Fittings Co., Pittsburgh, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Tees, Malleable Iron

Crane Co., Chicago, Ill.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg Co., Cleveland, Ohio.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Tees, Steel

Crane Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jones & Laughlin Steel Corp., Pittsburgh.
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Tube-Turns, Inc., Louisville, Ky.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Tees, Suction

Dick Brothers, Inc., Reading, Pa.
Walworth Co, New York, N. Y.

Tees, Union

Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Nugent, Wm. W., & Co., Chicago, Ill.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Richardson, Edro, Brass Co., T .e, Baltimore Md. (Bronze)
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Teeth, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Sampson Tool Co., Inc., New York, N. Y.
Simonds Saw and Steel Co., Fitchburg, Mass.

Tenders, Tool and Machine

Angle Steel Stool Co., Plainwell, Mich.
Pollard Bros. Mfg. Co., Chicago, Ill.

Tents, Canvas

Hettrick Mfg. Co., Toledo, Ohio.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Hettrick, W. E., & Son, Inc., Toledo, Ohio.

Testers, or Test Pumps, Gauge

Amthor Testing Instrument Co., Inc., Brooklyn, N. Y.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Perkes, Charles, Co., Philadelphia, Pa.
Syracuse Steam Generator, Inc., Syracuse.
Watson-Stillman Co., The, Roselle, N. J.

Testers, Screw Thread Gauge

Brown & Sharpe Mfg. Co., Providence, R. I.
Lufkin Rule Co., The, Saginaw, Mich.
Watson-Stillman Co., The, Roselle, N. J.

Testers, Water Meter

Mueller Co., Decatur, Ill.

Thawers, Pipe, Steam

Bernz, Otto, Co., Inc., Rochester, N. Y.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Unique Manufacturing Co., Inc., Chicago.

Thawing Machines and Steamers, Pipe

(See "Machines and Steamers, Thawing, Pipe")

Thermometers, Dial

Sarco Co., Inc., New York, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

Thermometers, Hot Water

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Foxboro Co., The, Foxboro, Mass.
Marsh, Jas. P., & Co., Chicago, Ill.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Powers Regulator Co., The, Chicago, Ill.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.

Thermometers, Indicating

Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Foxboro Co., The, Foxboro, Mass.
Illinois Testing Laboratories, Inc., Chicago, Ill.
Leeds & Northrup Co., Philadelphia, Pa.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Philadelphia Thermometer Co., Philadelphia, Pa.
Powers Regulator Co., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Thermometers, Recording

Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Instrument Co. of America, Inc., Baltimore, Md.
Dietzgen, Eugene, Co., Chicago, Ill.
Foxboro Co., The, Foxboro, Mass.
Leeds & Northrup Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Moeller Instrument Co., Inc., Brooklyn.
Moto Meter Gauge & Equipment Corp., Toledo, Ohio.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Standard Thermometer, Inc., Boston, Mass.

Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.

Thermostats

Barber-Colman Co., Rockford, Ill.
Bastian-Morley Co., La Porte, Ind.
Brown Instrument Co., The, Philadelphia.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
General Electric Co., Schenectady, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Natioal Dry Kiln Co., The, Indianapolis, Ind. (Dry kiln)
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Standard Thermometer, Inc., Boston, Mass.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y.
Trent, Harold E., Co., Philadelphia, Pa.

Thieves, Water

Economy Manufacturing Co., Philadelphia.
Richardson, Edro, Brass Co., The, Baltimore, Md.

Thimbles, Pipe

Grabler Mfg. Co., Cleveland, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.

Thimbles, Rope

American Steel & Wire Co., Chicago, Ill.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Boston & Lockport Block Co., East Boston, Mass.
Fischer & Hayes Rope & Steel Co., Chicago.
McMillan's, W. H., Sons, New York, N. Y.
Madesco Tackle Block Co., Easton, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Roebling's, John A., Sons Co., Trenton, N. J.
Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Thimbles, Wall

Dodge Manufacturing Corp., Mishawaka, Ind.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Thread Button Set (For Marking Blind Holes)

National Machine Tool Co., Racine, Wis.

Thread Rolling Machines

(See "Machines, Thread Rolling")

Threaders, Bolt and Cap Screw

(See "Machines, Threading, Bolt and Cap Screw," and "Stocks and Dies, Bolt")

Threaders, Nipple, Ceiling

Armstrong Manufacturing Co., Bridgeport, Conn.
Borden Co., The, Warren, Ohio.

Threaders, Pipe

(See "Machines, Cutting and Threading, Pipe," "Stocks, Die," "Stocks and Dies," and "Dies, Pipe Threading")

Threading Machines

(See "Machines, Threading," and "Machines, Cutting and Threading")

Tiering Machines

(See "Elevators, Pilers or Stackers, Portable")

Tighteners, Belt

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Arguto Oilless Bearing Co., Philadelphia.
Chicago Pulley & Shafting Co., Chicago.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farquahar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee,, Wis.
Hill Clutch Machine & Foundry Co,, The, Cleveland, Ohio.
Hubbard & Co., Pittsburgh, Pa.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Schieren, Chas. A., Co., New York, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Tile—Galvanized, Zinc and Copper

Edwards Manufacturing Co., Inc., The, Cincinnati, Ohio.

Tiling, Rubber Floor

Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

Tilters and Handlers, Barrel and Carboy

Hanson-Van Winkle-Munning Co., Matawan, N. J.
Schwenk Safety Device Corp., New York.

Tips, Cutting and Welding

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Sight Feed Generator Co., Richmond, Ind.

Toggles

Chicago Expansion Bolt Co., Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)

Tongs, Blacksmiths'

Dallett Co., The, Philadelphia, Pa.
Heller Brothers Co., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tongs, Bolt

Heller Bros. Co., Newark, N. J.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tongs, Chain, Pipe

(See "Wrenches, Pipe, Chain")

Tongs, Clinch

Heller Brothers Co., Newark, N. J.

Tongs, Clinker

Leetonia Tool Co., The, Leetonia, Ohio.

Tongs, Crucible

Channon, J. H., Corp., Chicago, Ill.

Tongs, Pipe

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Crane Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J.
National Transit Pump & Machine Co., Oil City, Pa.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Tongs, Rail and Tie

Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.

Tongs, Skidding

Dixie Logging Tool Co., Chattanooga, Tenn.
Leach Co., Oshkosh, Wis.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tongs, Stone

Dallett Co., The, Philadelphia, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tool Boxes and Chests

(See "Boxes, Tool," and "Chests, Tool")

Tool Sets, Hollow Handle

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Millers Falls Co., Greenfield, Mass.
Sandvik Saw & Tool Corp., Minneapolis.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Anvil

Dallett Co., The, Philadelphia, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Heller Bros. Co., Newark, N. J.
Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Balancing

Gisholt Machine Co., Madison, Wis.
Sundstrand Machine Tool Co., Rockford, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Tools, Beading

Leetonia Tool Co., The, Leetonia, Ohio.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Scully-Jones & Co., Tool Division, Chicago.
Tallman Manufacturing Co., Shelbyville, Ill.

Tools, Belt Lacing

Alexander Brothers, Inc., Philadelphia, Pa.
Baltimore Belting Co., Baltimore, Md.
Buffalo Belting Works, Buffalo, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Detroit Belt Lacer Co., Detroit, Mich.
Graton & Knight Co., Worcester, Mass.
Greene, Tweed & Co., New York, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Malin Co., The, Cleveland, Ohio.
Manufacturers' Belt Hook Co., Chicago, Ill.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Safety Belt-Lacer Co. Toledo, Ohio.
Schieren, Chas. A., Co., New York, N. Y.
Schollhorn, Wm., Co., The, New Haven, Conn.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Tools, Belt Makers'

Baltimore Belting Co., Baltimore, Md.
Chicago Rawhide Mfg. Co., The, Chicago.
Detroit Oak Belting Co., Detroit, Mich.
Graton & Knight Co., Worcester, Mass.
Manufacturers' Belt Hook Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.
Schieren, Chas. A., Co., New York, N. Y.
Webb, J. A., Belting Co., Inc., Buffalo, N. Y.

Tools, Blacksmiths'

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Champion Blower & Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Electric Blower Co., Boston, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Gundlach, T. J., Machine Co., Belleville, Ill.
Heller Brothers Co., Newark, N. J.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Ingersoll-Rand Co., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Noyes, B. B., Co., Greenfield, Mass.
R. S. Products Corp., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Drilling Machine Co., Akron, Ohio.

Tools, Boilermakers'

Dudgeon, Richard, Inc., New York, N. Y.
Excelsior Tool & Machine Co|, East St. Louis, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Key Boiler Equipment Co., East St. Louis, Ill.
Liggnum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Stanley Rule & Level Plant, The, New Britain, Conn.
Whitney Metal Tool Co., Rockford, Ill.

Tools, Boring

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Elermann Floor Scraper Co., The, Brooklyn, N. Y. (Also tunneling tools)
Gairing Tool Co., The, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Hannifin Mfg. Co., Chicago, Ill.
Ideal Commutator Dresser Co., Sycamore, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Ingersoll Milling Machine Co., Rockford, Ill.
Kelly Reamer Co., Cleveland, Ohio.
Lovejoy Tool Co., Inc., Springfield, Vt.

Madison Manufacturing Co., Muskegon, Mich.
Moak Machine & Tool Co., Port Huron, Mich.
Millers Falls Co., Greenfield, Mass.
Pratt & Whitney Co., Hartford, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Williams, J. H., & Co., New York, N. Y.

Tools—Boring, Facing and Turning Combined

Armstrong Bros. Tool Co., Chicago, Ill.
Gisholt Machine Co., Madison, Wis.
Hannifin Mfg. Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingersoll Milling Machine Co., Rockford, Ill.
Kelly Reamer Co., Cleveland, Ohio.

Tools, Brazing

Air Reduction Sales Co., New York, N. Y.
Atkins, E. C., and Co., Indianapolis, Ind.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Disston, Henry. & Sons, Inc., Tacony, Philadelphia Pa.
Heller Brothers Co. Newark, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Linde Air Products Co., The, New York.
Smith Welding Equipment Corp., Minneapolis, Minn.
Swett, Frank W., & Son, Chicago, Ill.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Tools—Bricklayers', Cement Workers' and Masons'

Atlas-Ansonia Co., New Haven, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Drew, C., & Co., Kingston Mass.
Eiermann Floor Scraper Co. The, Brooklyn, N. Y. (Floor scraper for cement workers)
Kilborn and Bishop Co., The, New Haven, Conn.
Marshalltown Trowel Co., Marshalltown, Iowa.
Peerless Level & Tool Co., The, Sterling, Ill.
Plomb Tool Co., Los Angeles, Calif.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Calking

American Swiss File & Tool Co., Elizabeth, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Black & Decker Mfg. Co., The, Towson, Md.
Chicago Pneumatic Tool Co., New York.
Cleveland Rock Drill Co., The, Cleveland.
Drew, C., & Co., Kingston, Mass.
Husky Corp., Kenosha, Wis. (Chisels)
Leetonia Tool Co., The, Leetonia, Ohio.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Mueller Co., Decatur, Ill.
Paasche Airbrush Co., Chicago, Ill.
Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Star Bit & Tool Co., Rockford, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tools, Carpenters'

Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Grobet File Corp. of America, New York.
Heller Brothers Co., Newark, N. J.
Liggnum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Millers Falls Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Peerless Level & Tool Co., The, Sterling, Ill.
Sandvik Saw & Tool Corp., Minneapolis.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.
Starrett, L. S., Co., The, Athol, Mass.
Tuck Mfg. Co., Brockton, Mass.
Wappat, Inc., Pittsburgh, Pa.
Williams, J. H., & Co., New York, N. Y.

Tools, Chain

Williams, J. H., & Co., New York, N. Y.

Tools, Combination

Atkins, E. C., and Co., Indianapolis, Ind.
Blackhawk Mfg. Co., Milwaukee, Wis.
Gairing Tool Co., Detroit, Mich.
Heller Brothers Co., Newark, N. J.

Tools, Coopers'

Drew, C., & Co., Kingston, Mass.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tools, Cutting-Off

(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

Tools, Diamond Pointed

American Swiss File & Tool Co., Elizabeth, N. J.
Commercial Diamond Co., Detroit, Mich.
Karelsen, E., Inc., New York, N. Y.
Kelly Reamer Co., Cleveland, Ohio.
Leetonia Tool Co., The, Leetonia, Ohio.
Plomb Tool Co., Los Angeles, Calif.

Tools, Dowel

Stanley Rule & Level Plant, The, New Britain, Conn.
Star Bit & Tool Co., Rockford, Ill.

Tools, Draughtsmen's

Brown & Sharpe Mfg. Co., Providence, R. I.
Dietzgen, Eugene, Co., Chicago, Ill.
Johnson, E. P., Rule Mfg. Co., Chicago, Ill.
Starrett, L. S., Co., The, Athol, Mass.

Tools, Drilling, Well

(See "Machines and Tools Drilling, Well")

Tools, Electric

(See Specific Items)

Tools, Electricians'

American Pipe Tool Co., Chicago, Ill.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Compton, W. H., Shear Co., The, Newark, N. Y. (Shears and scissors)
Crescent Tool Co., Jamestown, N. Y.
Drew, C., & Co., Kingston, Mass.
Goodell-Pratt Co., Mansfield, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Klein, M., & Sons, Chicago, Il.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Schollhorn, Wm., Co., The, New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass. (Socket wrench set)

Tools, Fence

American Steel & Wire Co., Chicago, Ill.
Crescent Tool Co., Jamestown, N. Y.
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Grobet File Corp. of America, New York.
Lufkin Rule Co., The, Saginaw, Mich.
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Taft-Peirce Manufacturing Co., Woonsocket, R. I.

Tools, Firing

Leetonia Tool Co., The, Leetonia, Ohio.
Vulcan Tool Mfg. Co., Quincy Mass.

Tools, Flaring, Copper Tube

Imperial Brass Manufacturing Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Scully-Jones & Co., Tool Division, Chicago.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Tools, Grooving, Pipe

Borden Co., The, Warren, Ohio.
Gairing Tool Co., Detroit, Mich.
National Machine Tool Co., Racine, Wis.
Strickler, W. W., & Brothers, Columbus, O.

Tools, Hydraulic

Bethlehem Steel Co., Bethlehem, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Watson-Stillman Co., The, Roselle, N. J.

Tools, Ice

Leach Co., Oshkosh, Wis.

Tools, Key Seating

Baker Brothers, Inc., Toledo, Ohio.
Mitts and Merrill, Saginaw, Mich.
Pratt & Whitney Co., Hartford, Conn.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Tools, Knurling

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Burr, John T., & Son, Brooklyn, N. Y.
Pratt & Whitney Co., Hartford, Conn.
Williams, J. H., & Co., New York, N. Y.

Tools, Lathe

Armstrong Bros. Tool Co., Chicago, Ill
Boice, W. B. & J. E., Toledo, Ohio.
Gisholt Machine Co., Madison, Wis.
Latrobe Tool Co., Latrobe, Pa.
Lovejoy Tool Co., Inc., Springfield, Vt.
Marcy Tool Works, Inc., Putnam, Conn.
Pratt & Whitney Co., Hartford, Conn.
Ryerson, Joseph T., & Son, Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

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Chicago Rawhide Mfg. Co., The, Chicago.
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Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Ingersoll Milling Machine Co., Rockford, Ill.
Pratt & Whitney Co., Hartford, Conn.
Williams, J. H., & Co., New York, N. Y.

Tools, Mining

Cleveland Rock Drill Co., The, Cleveland.
Klein-Logan Co., The, Pittsburgh, Pa.
Tallman Manufacturing Co., Shelbyville, Ill.
Trimont Mfg. Co., Roxbury, Boston, Mass.

Tools, Molders'

Moak Machine & Tool Co., Port Huron, Mich.

Tools, Oil Well

Blackhawk Mfg. Co., Milwaukee, Wis.
Conant & Donelson Co., Conway, Mass.
Star Drilling Machine Co., Akron, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Tools, Packing

Cleveland Rock Drill Co., The, Cleveland.
Greene, Tweed & Co., New York, N. Y.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

Tools, Paving

Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Drew, C., & Co., Kingston, Mass.
Vulcan Tool Mfg. Co., Quincy, Mass.

Tools, Planer

Armstrong Bros. Tool Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Marcy Tool Works, Inc., Putnam, Conn.
Moak Machine & Tool Co., Port Huron, Mich.
Ryerson, Joseph T., & Son, Inc., Chicago.
Templeton, Kenly & Co., Chicago, Ill.
Williams, J. H., & Co., New York, N. Y.

Tools—Plumbers', Steam and Gas Fitters'

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Armstrong Manufacturing Co., Bridgeport, Conn.
Atlas-Ansonia Co., New Haven, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Blake Specialty Co., Rock Island, Ill.
Borden Co., The, Warren, Ohio.
Crane Co., Chicago, Ill.
Crescent Tool Co., Jamestown, N. Y.
Drew, C., & Co., Kingston, Mass.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Boring spades)
Heller Brothers Co., Newark, N. J.
Hollands Mfg. Co., Erie, Pa.
Marcy Tool Works, Inc., Putnam, Conn.
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Peck, Stow, & Wilcox Co., Southington, Conn.
Plomb Tool Co., Los Angeles, Calif.
Rapid Spring Co., The, Pittsburgh, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Schollhorn, Wm., Co., New Haven, Conn.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

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Chicago Pneumatic Tool Co., New York.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Cleveland Rock Drill Co., The, Cleveland.
Cleveland Wrought Produce Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Dallett Co., The, Philadelphia, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Simplex Spray Equipment Co., Chicago, Ill.
Star Bit & Tool Co., Rockford, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.

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Aldon Co., The, Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Hubbard & Co., Pittsburgh, Pa.
Independent Pneumatic Tool Co., Chicago.
Ingersoll-Rand Co., New York, N. Y.
Klein-Logan Co., The, Pittsburgh, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Tallman Manufacturing Co., Shelbyville, Ill.

Tools, Roofers'

Eiermann Floor Scraper Co., The, Brooklyn, N. Y. (Scratch bars or scraper)
Gundlach, T. J., Machine Co., Belleville, Ill. (Asphalt cutters)
Littleford Bros., Cincinnati, Ohio.
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., Southington, Conn.

Tools, Sash

Osborn Manufacturing Co., The, Cleveland.

Tools, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Crowell, D. J., & Crowell, F. G., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Foley Manufacturing Co., Minneapolis.
K-D Manufacturing Co., Lancaster, Pa.
Simonds Saw and Steel Co., Fitchburg, Mass.

Tools, Scaling

(See "Hammers, Pneumatic-Chipping, Scaling, Riveting and Calking")

Tools, Screw Cutting, Lathe

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Tool & Engineering Co., Chicago.
Gairing Tool Co., Detroit, Mich.
National Acme Co., Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Tools, Screw Machine

Brown & Sharpe Mfg. Co., Providence, R. I.

Tools, Shaper

(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

Tools, Sheet Metal Working

(See "Machines and Tools, Sheet Metal Working")

Tools, Slotter

Armstrong Bros. Tool Co., Chicago, Ill.

Tools, Soldering, Electric

Electric Torch Mfg. Co., Oakland, Calif.
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Victor Instrument Mfg. Co., Inc., New York, N. Y.

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Hones, Charles A., Inc., Baldwin, N. Y.
Sight Feed Generator Co, Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.

Tools, Stonecutters'

Dallett Co., The, Philadelphia, Pa.
Drew, C., & Co., Kingston, Mass. (Marble workers' tools)
Kilborn and Bishop Co., The, New Haven, Conn.
Liggnum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
Ruemelin Mfg. Co., Milwaukee, Wis.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.
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Tools, Threading

(See "Dies," "Plates, Screw," "Stocks, Die," "Stocks and Dies" and "Taps")

Tools, Tinners'

Barcalo Mfg. Co., Buffalo, N. Y.
Crescent Tool Co., Jamestown, N. Y.
Liggnum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
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Plomb Tool Co., Los Angeles, Calif.
Ryerson, Joseph T., & Son, Inc., Chicago.
Whitney, W. A., Mfg. Co., Rockford, Ill.
Whitney Metal Tool Co, Rockford, Ill.

Tools, Truing, Grinding Wheel

Armstrong Bros. Tool Co., Chicago, Ill.
Ross Mfg. Co., The, Cleveland, Ohio.
Standard Electrical Tool Co., The, Cincinnati, Ohio.

Tools, Turret Head

(See "Holders, Tool, for Lathes, Planers, Shapers and Boring Machines")

Tools, Valve Reseating

(See "Reseating Tools, Valve and Bibb")

Tools, Wood Carving

Dallett Co., The, Philadelphia, Pa.
Grobet File Corp. of America, New York.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Liggnum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
Millers Falls Co., Greenfield, Mass.
Ruemelin Mfg. Co., Milwaukee, Wis.

Tools, Wood Turning

Delta Mfg. Co., Milwaukee, Wis.
Greenlee Bros. & Co., Rockford, Ill.
Gustafson & Scott Mfg. Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa.
Millers Falls Co., Greenfield, Mass.
Moak Machine & Tool Co., Port Huron, Mich.

Torches, Blow

Aeroil Burner Co., Inc., West New York, N. J.
American Solder & Flux Co., Philadelphia.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto , Co., Inc., Rochester, N. Y.
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Clements Mfg Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago.
Hauck Manufacturing Co., Brooklyn, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Justrite Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York.
Kilborn and Bishop Co., The, New Haven, Conn.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Milburn, Alexander, Co., The, Baltimore.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sampson Tool Co., Inc., New York, N. Y.
Sandvik Saw & Tool Corp., Minneapolis.
Schaefer & Beyer, Newark, N. J.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Contractors'

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg Co., Detroit.
Consolidated Iron-Steel Mfg Co., Cleveland, Ohio.
Dietz, R. E., Co., New York, N. Y.
Toledo Pressed Steel Co, The, Toledo, O.
Unique Manufacturing Co, Inc., Chicago.
Walters Manufacturing Co., Oakmont, Pa.

Torches, Cutting and Welding

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Electric Torch Mfg. Co., Emeryville, Cal.
Harris Calorific Co., The, Cleveland, Ohio.
Imperial Brass Manufacturing Co., Chicago.
K-G Welding & Cutting Co., Inc., New York.
Linde Air Products, Inc., The, New York.
Milburn, Alexander, Co., The, Baltimore.
Modern Engineering Co., St. Louis, Mo.
Pittsburgh Thermoline Co., Pittsburgh, Pa.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Turner Brass Works, The, Sycamore, Ill.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Torches, Decarbonizing

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Harris Calorific Co., The, Cleveland, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York.
Linde Air Products, Inc., The, New York.
Pittsburgh Thermoline Co, Pittsburgh, Pa.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Weldit Acetylene Co., Detroit, Mich.

Torches—Engineers', Factory, Mine, Etc.

Clayton & Lambert Mfg. Co., Detroit.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Gem Manufacturing Co, Pittsburgh, Pa.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Manufacturing Co., Oakmont, Pa.

Torches, Gas

Aeroil Burner Co, Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clements Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eisler Electric Corp., Newark, N. J.
Harris Calorific Co., The, Cleveland, Ohio.
Hones, Chas. A., Inc., Baldwin, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kilborn and Bishop Co., The, New Haven, Conn.
Pittsburgh Thermoline Co., Pittsburgh.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Red Devil Manufacturing Co., Bellwood, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Weldit Acetylene Co., Detroit, Mich.

Torches, Gasoline

Aeroil Burner Co., Inc., West New York, N. J.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Detroit Torch & Manufacturing Co., Detroit, Mich.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Everhot Mfg. Co., Maywood, Ill.
Hauck Manufacturing Co., Brooklyn, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Klein, M., & Son, Chicago, Ill.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Schaefer & Beyer, Newark, N. J.
Turner Brass Works, The, Sycamore, Ill.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Heating

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit.
Diamond Iron Works, Inc., Minneapolis.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hauck Manufacturing Co., Brooklyn, N. Y.
Hones, Chas. A., Inc., Baldwin, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torit Mfg. Co., St. Paul, Minn.
Weldit Acetylene Co., Detroit, Mich.

Torches, Kerosene

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dietz, R. E., Co., New York, N. Y.
Gem Manufacturing Co., Pittsburgh, Pa.
Harris Calorific Co., The, Cleveland, Ohio.
Hauck Manufacturing Co., Brooklyn, N. Y.
Littleford Bros., Cincinnati, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Toledo Pressed Steel Co., The, Toledo, O.

Torit Mfg. Company, St. Paul, Minnesota.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.

Torches, Thawing and Heating

Aeroil Burner Co., Inc., West New York, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Diamond Iron Works, Inc., Minneapolis.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Electric Torch Mfg. Co., Emeryville, Cal.
Hauck Manufacturing Co., Brooklyn, N. Y
Hones, Chas. A., Inc., Baldwin, N. Y.
Huffman Manufacturing Co., The, Dayton, Ohio.
Klein, M., & Son, Chicago, Ill.
Littleford Bros., Cincinnati, Ohio.
Macleod Co., The, Cincinnati, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torit Mfg. Co., St. Paul, Minn.
Turner Brass Works, The, Sycamore, Ill.
Unique Manufacturing Co., Inc., Chicago.
Walters Manufacturing Co., Oakmont, Pa.
Weldit Acetylene Co., Detroit, Mich.

Torches, Truck

Toledo Pressed Steel Co., The, Toledo, O.
Wall, P., Mfg. Supply Co., Pittsburgh.

Torches, Welding and Cutting

(See "Torches, Cutting and Welding")

Tracks, Overhead

(See "Trolleys, Tracks and Tramways, Overhead")

Tractors, Factory

(See "Trucks and Tractors, Factory")

Trailers for Industrial Tractors

American Car & Foundry Co., New York.
Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Littleford Bros., Cincinnati, Ohio.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Service Caster & Truck Co., The, Albion, Mich.
Streich, A., & Bro. Co., Oshkosh, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trammels

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Osborn Manufacturing Co., The, Cleveland.
Stanley Rule & Level Plant, The, New Britain, Conn.

Tramways, Overhead

(See "Trolleys, Tracks and Tramways, Overhead")

Transits, Builders'

Dietzgen, Eugene, Co., Chicago, Ill.
Gurley, W. & L. E., Troy, N. Y.
Keuffel & Esser Co., Hoboken, N. J.

Transmissions, Right Angle

De Laval Steam Turbine Co., Trenton, N. J.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Drive Corp., New York, N. Y.
Farrel-Birmingham Co., Inc., Buffalo, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Gears and Forgings, Inc., Cleveland, Ohio.
Link-Belt Co., Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Smith, Winfield H., Inc., Springville, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

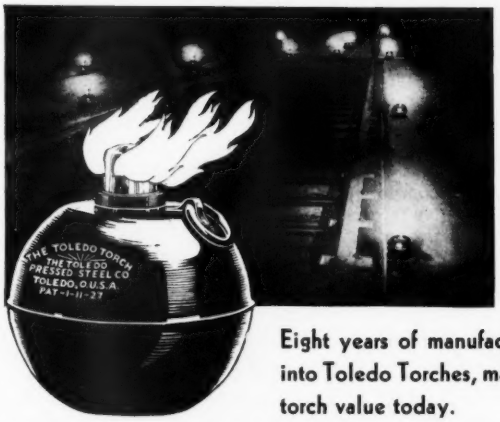
Transmissions, Speed Reducing

(See "Reducers, Speed")

Transmissions, Variable Speed

Brown, D. P., & Co., Philadelphia, Pa.
Dodge Manufacturing Corp., Mishawaka, Ind.
Driscoll Drive Corp., New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Gears and Forgings, Inc., Cleveland, Ohio.
Lewellen Manufacturing Co., Columbus, Ind.
Link-Belt Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
Morse Chain Co., Ithaca, N. Y.

Toledo Torches



No other torch offers the economical, sure-fire protection that is secured with the genuine Toledo Torch. Recent refinements in construction still further simplify handling.

●

Eight years of manufacture and service are built into Toledo Torches, making them the outstanding torch value today.

The Harder It Blows . . . The Better They Burn

Toledo Truck Flares

Fully in keeping with the high standards always maintained by Toledo Torches is this more recent addition to the line,—a better kind of truck flare. Using the same dependable Economy Burner and packed in a heavy steel case, they more than meet all state and federal requirements.

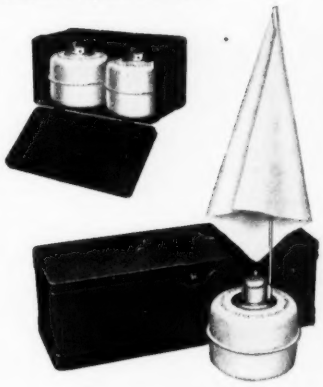
These flares are available in sets of two or three. The case is attachable to the truck in any convenient place or position. The flares fit the case in any position and may be locked in place. A specially designed flag completes this compact and convenient unit.

Write for full details

MADE BY

The Toledo Pressed Steel Co.

TOLEDO, OHIO



Reeves Pulley Co., Columbus, Ind.
Rockford Drilling Machine Co., Rockford, Ill.
Rockwood Mfg. Co., The, Indianapolis., Ind,
Stephens-Adamson Mfg. Co., Aurora, Ill.

Traps, Air

Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Grinnell Co., Inc., Providence, R. I.
H. D. B. Corporation, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Blast

Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Mashalltown, Iowa.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Sarco Co., Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Gasoline

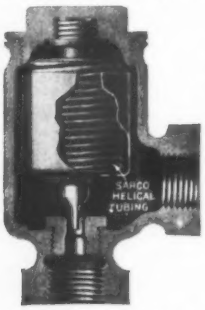
Anderson, V. D., Co., The, Cleveland, O.
Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Imperial Brass Mfg. Co., Chicago.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Grease

American Foundry & Mfg. Co., St. Louis.

SARCO STEAM TRAPS

Type No. 9—This is a thermostatic trap, suitable for individual trapping of all types of steam heated equipment. It is low in first cost, of small size and easy to install, going into the pipe like a fitting.

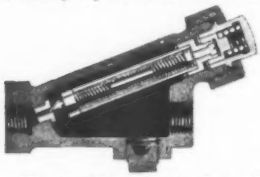


The No. 9 Trap is self-adjusting and works equally well on steady or fluctuating pressures. The discharge valve is operated by a helical bellows containing a volatile fluid. The moment live steam reaches the trap this fluid expands and closes the valve tightly. As condensate collects, the bellows contracts and opens the valve. Will not stick, freeze or air bind.

Type 9-1 for pressures 0 to 50 lb. Brass valve head and seat.

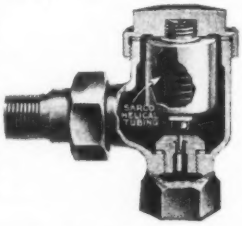
Type 9-2 for pressures from 0 to 125 lb. Stainless steel valve head and seat.

Type No. 8—This trap utilizes the hydraulic pressure of a heavy hydrocarbon oil hermetically sealed in a metal tube. Due to the irresistible force of expanding oils, this trap is unfailing in action.



A simple adjustment enables the user to adapt the trap for use at various pressures. *Write for Catalog Z-48.*

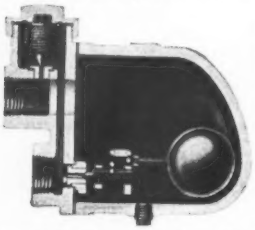
Type No. S-75 for Process Steam—Employs the same principle as the No. 9 Trap, but has union inlet connection and nickel-plated body. It has renewable stainless steel valve head and seat. Recommended for installations where process steam is used up to 100 lb. pressure. *Write for Catalog Z-46.*



Combination Float and Thermostatic Steam Trap FTH

For heavy service, where large quantities of very hot condensate form more rapidly than they can be handled by thermostatic means alone, such as large unit heaters, steam coils, hot water service tanks, etc., when using high pressure steam.

Body is cast iron, light enough to be supported directly on piping. A heavy seamless copper float opens the discharge valve through a simple toggle mechanism, as condensate accumulates in the trap. Valve head and renewable seat are stainless steel to withstand the scoring action of scale and sediment, and prevent wire drawing.



A thermostatic air vent is built right into the trap near the top. This consists of a small valve actuated by a helically corrugated bellows, partly filled with a volatile liquid. The valve is held open as long as there is air in the trap, but closed tightly as soon as steam reaches it and causes the bellows to expand.

All working parts are attached to the cover so that they are easily inspected by removing the trap body without disturbing any piping connections. For pressures up to 200 lb. per sq. in. *Write for Catalog Z-38.*

SARCO CO., Inc.

183 Madison Ave. New York, N. Y.

Branches in Principal Cities

Sarco Canada Limited, Federal Bldg., Toronto, Ont., Canada

Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Steam Appliance Co., West Allis, Wis.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Oil

Armstrong Machine Works, Three Rivers, Mich.
Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Steam Appliance Co., West Allis, Wis.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Traps, Pumping

Kieley & Mueller, Inc., New York, N. Y.
Strong, Carlisle & Hammond, Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.

Traps, Radiator

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Burrows, F. A., Mfg. Co., York, Pa.
D. G. C. Trap & Valve Co., Inc., New York.
Grinnell Co., Inc., Providence, R. I.
Holmberg Steam Trap Co., The, Lindsborg, Kans.
Marsh, Jas. P., & Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
National Lead Co., New York, N. Y.
Sarco Co., Inc., New York, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Traps, Sediment

(See "Strainers and Traps, Sediment")

Traps, Steam

American Blower Corp., Detroit, Mich.
American Foundry & Mfg. Co., St. Louis.
Anderson, V. D., Co., The, Cleveland, Ohio.
Armstrong Machine Works, The, Three Rivers, Mich.
Automatic Primer Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Burrows, F. A., Mfg. Co., York, Pa.
Connor, W. B., Engineering Corp., New York, N. Y.
Crane Co., Chicago, Ill.
D. G. C. Trap & Valve Co., Inc., New York.
Davis Regulator Co., Chicago, Ill.
Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Healy-Ruff Co., St. Paul, Minn.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Johns-Manville Sales Corp., New York.
Justus Steam Trap Co., Napanoch, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.

STEAM TRAPS

J-M BALL TRAPS

CRYER INVERTED BUCKET TRAPS

Thousands of our traps are now in use. You can safely recommend them to your customers. Distributors will be protected.

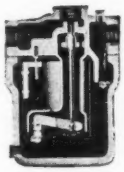
D. G. C. TRAP & VALVE CO., INC.

366 Madison Ave., N. Y. C.

Distributors in Principal Cities

Steam Traps

Experience has proven that there is no one type of trap suitable for all conditions. By manufacturing several types and patterns it is a simple matter to select a Wright-Austin trap of a type and size that is especially adapted to each particular requirement or service resulting in the highest efficiency available.

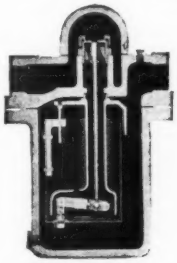


"Cub" Type
½" to 1"
0 to 250 lbs.

The "Airxpel," besides satisfying the requirements of those engineers who prefer a Vertical Bucket Type, is a highly efficient, Accessible trap that embodies new and exclusive patented features. A "double duty" steam trap which automatically discharges both air and condensate.

It is made in three patterns.

The small Cub sizes to serve Unit Heaters, Cookers, Chemical Processes, Laundry Equipment, etc.

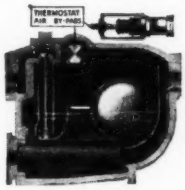


"Master" Type
½" to 2"
0 to 300 lbs.

The Master sizes for larger capacities and general use in power plant service.

The Forged Steel pattern for high pressures is really a work of super excellence.

The "Combination" Trap is a float type of large capacity, having internal thermostatic air bypass and internal strainer. Is so designed that either thermostatic air bypass and strainer may be omitted, or supplied with outside air vent—also water gauge, if desired. Especially satisfactory on all kinds of vacuum heating services, and all pressures up to 125 lbs. Made with special alloy valve and seat and nickel float.

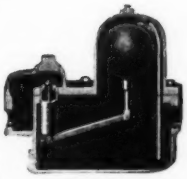


"Combination" Trap
1" to 1¼"
Vacuum to 40 lbs.

"Emergency" Trap
½" to 3"
0 to 250 lbs.

The "Emergency" 3-Valve Trap is a float type, which operates on all pressures from 0 to 200 lbs. without change of valves or any adjustment.

The "Victor" is a low pressure float type for extremely large volumes of condensation at low pressures or vacuum. It is also an excellent oil and grease trap because of its very large valve opening.



"Victor" Trap
½" to 3"
0 to 20 lbs.

Send for Literature

WRIGHT AUSTIN

316 West Woodbridge
DETROIT - - - - - - - - - - MICHIGAN

ARMSTRONG STEAM TRAPS

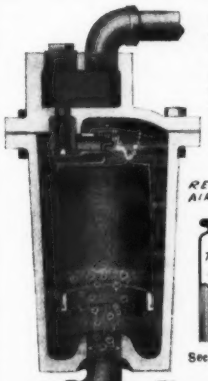
THE Armstrong line of steam traps is complete, with traps designed for any type of service, any capacity, and any pressure. Each trap embodies the genuine inverted bucket principle and is non-air-binding and self-scrubbing.

The Armstrong trap has only two moving parts—the valve lever assembly and the inverted bucket. The seat and valve are special heat treated chrome steel and all other wearing parts are nickel chrome steel.

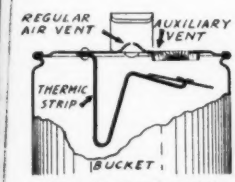
Trap mechanisms are carried in stock to resist such acids as sulphurous, nitric, and hydrogen sulphide, as well as common alkalis. Special materials can be used on order.

For extra fast removal of air the Armstrong "blast" trap is recommended having an air removal capacity of from 400 to 800 cu. ft. of free air per hour.

For high pressure or high temperatures, for pulsating pressure or very large amounts of condensate, consult the nearest Armstrong representative, or send for The Armstrong Trap Book, a 28-page steam trap manual. The listings below permit ordering any general service traps your customers need.



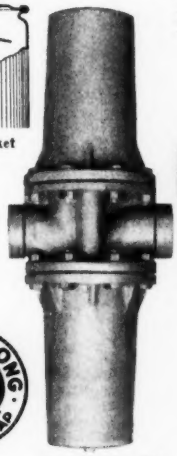
Cross Section of Trap



Section of the Thermic Bucket Used in "Blast" Trap

No. 200 Trap

No. 213 Trap



No. 235—For Big Condensate Volume

No. 315—For High Pressure

SIZES, CAPACITIES AND LIST PRICES OF ARMSTRONG TRAPS

TRAP SIZE		No. 200	No. 201	No. 211	No. 212	No. 213	No. 214	No. 215	No. 216
Pipe Connections		½"	½"	½"	½"	½" or ¼"	1"	1" or 1¼"	1½" or 2"
List Price, Standard Trap, without Air Bypass		$7.00	$7.00	$9.25	$15.00	$20.75	$29.00	$38.00	$55.00
Telegraph Code, without Air Bypass		Acacia	Acanthus	Aspen	Birch	Walnut	Hemlock	Larch	Tamarack
List Price, with Air Bypass		*$8.50	*$8.50	$10.75	$17.00	$22.75	$31.50	$40.50	$60.00
Telegraph Code, with Air Bypass		Acacette	Acanette	Aspette	Birette	Walette	Hemlette	Larette	Tamrette
Height		4⅜"	5⅛"	6⅛"	8"	10¼"	12½"	14"	16¾"
Diameter		4½"	3¾"	4⅛"	5"	6⅛"	7½"	8½"	10⅝"
Weight		4 lbs.	4 lbs.	5½ lbs.	10½ lbs.	19 lbs.	32 lbs.	47 lbs.	76 lbs.
Maximum Pressure		125	125	200	200	250	250	250	250
Continuous discharge capacity in lbs. of water per hour at pressures indicated. Lbs. Pressure	5	450	450	840	1560	3000	4600	7600	14,300
	10	560	560	1000	1900	3500	5600	9100	17,200
	15	640	640	1080	2060	3900	6300	10,000	19,000
	20	690	690	890	1800	3100	5900	8500	18,200
	25	460	460	940	1940	3390	6300	9200	20,000
	30	500	500	970	2050	3600	6600	9800	17,600
	40	550	550	780	1700	3450	5700	8400	20,000
	50	600	600	840	1840	3750	6200	8900	18,200
	60	635	635	900	1950	4050	6600	9300	19,600
	70	660	660	940	2030	3700	6100	9200	18,500
	80	690	690	800	1650	3920	6400	9700	19,800
	90	640	640	840	1750	3220	6100	10,100	18,000
	100	650	650	880	1840	3400	6300	10,400	18,500
	125	660	660	960	2040	3880	6700	10,900	20,400
	150	....	....	820	1530	3500	5900	9500	18,600
	200	....	....	900	1680	3200	5400	9500	17,400
	250	....	....	....	....	3500	5700	10,200	19,000

*For greenhouse service a special trap listing at $8.00 can be furnished.

CAUTION! Capacities shown in the table above are actual continuous discharge capacities when handling condensate at steam temperatures. A trap that discharges continuously is obviously too small for the job and hence it is necessary to apply a safety factor when selecting steam traps in order to insure intermittent operation and extra capacity for peak loads.

For most steam trap installations, a safety factor of 2 to 1 is adequate. That is, if the normal load of condensate at a given pressure is 1000 lbs. per hour, the continuous discharge capacity of the trap at this pressure should be 2000 lbs. per hour.

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Messmer Brass Co., St. Louis, Mo.
Milwaukee Steam Appliance Co., West Allis, Wis.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Powers Regulator Co., The Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Trerice, H. O., Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams Gauge Co., The, N. S., Pittsburgh.
Wright-Austin Co., Detroit, Mich.

Traps, Steam, Expansion

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Connor, W. B., Engineering Corp., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Nason Manufacturing Co., New York, N. Y.
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Tagliabue Mfg. Co., Brooklyn, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.

Traps, Steam, Return

Bishop & Babcock Sales Co., Cleveland, O.
Connor, W. B., Engineering Corp., New York, N. Y.
Crane Co., Chicago, Ill.
D. G. C. Trap & Valve Co., Inc., New York, N. Y.
Efficiency Engineering Co., Boston, Mass.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co.. New York, N. Y.
Sarco Co., Inc., New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Traps, Steam, Thermostatic

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
D. G. C. Trap & Valve Co., Inc., New York.
Grinnell Co., Inc., Providence, R. I.
Lawler Water Feed and Damper Regulator Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Powers Regulator Co., The, Chicago, Ill.
Sarco Co., Inc., New York, N. Y.

Traps, Steam, Water Seal

Anderson, V. D., Co., The, Cleveland, Ohio.
Connor, W. B., Engineering Corp., New York, N. Y.
D. G. C. Trap & Valve Co., Inc., New York.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
McAuley Automatic Trap Co., Pittsburgh.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York, N. Y.
Plant Engineering & Equipment Co. Inc., Brooklyn, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

Traps, Vacuum

Anderson, V. D., Co., The, Cleveland, Ohio.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Connor, W. B., Engineering Corp., New York, N. Y.
Efficiency Engineering Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Marsh, Jas. P., & Co., Chicago, Ill.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Nason Manufacturing Co., New York.
Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Sarco Co., Inc., New York, N. Y.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Wright-Austin Co., Detroit, Mich.

Trays, Barrow

American Steel Scraper Co., Sidney, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Geuder, Paeschke & Frey Co., Milwaukee.
Lansing Co., Lansing, Mich.
Sterling Wheelbarrow Co., Milwaukee.
Toledo Wheelbarrow Co., The, Toledo, O.

Trays, Tool, Factory

Angle Steel Stool Co., Plainwell, Mich.

Treatment, Water, for Boilers

American Sand Banum Co., Inc., New York, N. Y.
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Foster Engineering Co., Newark, N. J.
Permutit Co., The, New York, N. Y.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.

Trench Braces

(See "Braces, Trench and Timber")

Trestles, Extension Ladder

Babcock, W. W., Co., The, Bath, N. Y.
Patent Scaffolding Co., The, Chicago, Ill.

Trimmers, Lumber

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Filer & Stowell Co., The, Milwaukee, Wis.
Lane Mfg. Co., Montpelier, Vt.
Memphis Machine Works, Memphis, Tenn.
United States Machine Co., Williamsport, Pa.

Trimmers, Tree

Bartlett Manufacturing Co., Detroit, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Klein, M., & Son, Chicago, Ill.
Leach Co., Oshkosh, Wis.

Trimmers, Wood

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Atkins, E. C., and Co., Indianapolis, Ind.
Dallett Co., The, Philadelphia, Pa.
Perkins & Co., Grand Rapids, Mich.
Wallace, J. D., & Co., Chicago, Ill.

Tripods, Portable

(See "Derricks or Tripods, Portable")

Trippers, Conveying Belt

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Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
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Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

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American Steel & Wire Co., Chicago, Ill.
Beaumont, R. H., Co., Philadelphia, Pa.
Broderick & Bascom Rope Co., St. Louis.
Chain Belt Co., Milwaukee, Wis.
Channon, J. H., Corp., Chicago, Ill.
Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
Columbus McKinnon Chain Corp., Tonawanda, N. Y.
Conco Engineering Works, Mendota, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Euclid-Armington Corp., Euclid, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Ford Chain Block Co., Philadelphia, Pa.
Harnischfeger Corp., Milwaukee, Wis.
Harrington Co., The, Philadelphia, Pa.
Hobbs, Clinton S., Co., Boston, Mass.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Jeffery Manufacturing Co., The, Columbus, Ohio.
Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
Leschen, A., & Sons Rope Co., St. Louis.
Maris Brothers, Inc., Philadelphia, Pa.
Mathews Conveyor Co., Ellwood City, Pa.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Osborn Manufacturing Co., Cleveland, Ohio.
Palmer-Bee Co., Detroit, Mich.
Reading Chain & Block Corp., Reading, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Speidel Elevator Corp., Reading, Pa.
Stanley Works, The, New Britain, Conn.
Starline, Inc., Harvard, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Products, Inc., Newcastle, Ind.
Williamsport Wire Rope Co., Williamsport, Pa.
Wright Manufacturing Co., York, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Troughs, Grindstone, Cast Iron

Western Products, Inc., Newcastle, Ind.

Trowels

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Atlas-Ansonia Co., New Haven, Conn.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Economy Manufacturing Co., Philadelphia.
Foster Engineering Co., Newark, N. J.
Marshalltown Trowel Co., Marshalltown, Iowa.
Ohlen-Bishop Co., The, Columbus, Ohio.

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Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
West Bend Equipment Corp., West Bend, Wis.

Trucks—Barrel, Bag and Keg

American Pulley Co., The Philadelphia, Pa.
Barrett-Cravens Co., Chicago, Ill.
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Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Elwell-Parker Electric Co., The, Cleveland.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Mountville Mfg. Co., Mountville, Pa.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Schwenk Safety Device Corp., New York, N. Y. (Also carboy trucks)
Service Caster & Truck Co., The, Albion, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Belt Roll

Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co., Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Market Forge Co., Everett, Mass.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.

Trucks, Box

American Pulley Co., The, Philadelphia.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Continental-Diamond Fibre Co., Newark, Del.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Co., The, Cleveland, Ohio.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.

Foster Engineering Co., Newark, N. J.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis, G. B., Co., Watertown, Wis.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Pollard Bros. Mfg. Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
West Bend Equipment Corp. West Bend, Wis.

Trucks, Cargo

(See "Trucks, Railroad and Cargo")

Trucks, Core

Elwell-Parker Electric Co., The, Cleveland.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Die and Tool

Angle Steel Stool Co., Plainwell, Mich.
Elwell-Parker Electric Co., The, Cleveland, Ohio.
Pollard Bros. Mfg. Co., Chicago, Ill.
Service Caster & Truck Co., The, Albion, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Dolly

Angle Steel Stool Co., Plainwell, Mich.
Dixie Logging Tool Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
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Heller, W. C., Co., Montpelier, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Leach Co., Oshkosh, Wis.
Lewis-Shepard Co., Boston, Mass.
Marion Malleable Iron Works, Marion, Ind.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Service Caster & Truck Co., The, Albion, Mich.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stimmel Winch Co., Long Island City, N. Y.
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West Bend Equipment Corp., West Bend, Wis.

Trucks, Dry Kiln

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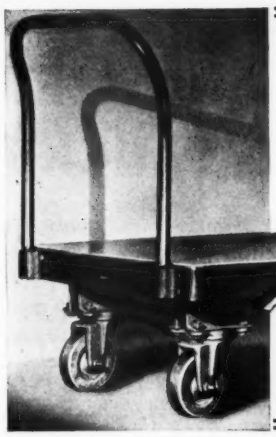
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Grand Rapids Vapor Kiln, Grand Rapids, Mich.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
National Dry Kiln Co., The, Indianapolis, Ind.
Service Caster & Truck Co., The, Albion, Mich.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Dumping

American Car & Foundry Co., New York.
Angle Steel Stool Co., Plainwell, Mich.



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Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
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Nutting Truck Co., Faribault, Minn.
Pollard Bros. Mfg. Co., Chicago, Ill.
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Service Caster & Truck Co., The, Albion, Mich.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Streich, A., & Bro. Co., Oshkosh, Wis.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Truscon Steel Co., Youngstown, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
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Wolverine Caster Co., The, Traverse City, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

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Lansing Co., Lansing, Mich.
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Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

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Lansing Co., Lansing, Mich.
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Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
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Continental-Diamond Fibre Co., Newark, Del.
Crescent Truck Co., Lebanon, Pa.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Maris Brothers, Inc., Philadelphia, Pa.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Pollard Bros. Mfg. Co., Chicago, Ill.
Service Caster & Truck Co., The, Albion, Mich.
Streich, A., & Bro. Co., Oshkosh, Wis.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

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American Car & Foundry Co., New York.
Barrett-Cravens Co., Chicago, Ill.
Chase Foundry & Mfg. Co., Columbus, O.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Marion Malleable Iron Works, Marion, Ind.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Sterling Wheelbarrow Co., Milwaukee.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Grain

American Pulley Co., The, Philadelphia, Pa.
Armstrong Truck Co., North Wales, Pa.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Clark, Geo. P., Co., Windsor Locks, Conn.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Sprout, Waldron & Co., Inc., Muncy, Pa.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Lift

(See "Trucks, Factory, Transfer or Elevator")

Trucks, Log

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Empire Manufacturing Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Streich, A., & Bro. Co., Oshkosh, Wis.

Trucks and Buggies, Lumber

Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Electric Wheel Co., Quincy, Ill.
Empire Manufacturing Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Nutting Truck Co., Faribault, Minn.
Streich, A., & Bro. Co., Oshkosh, Wis.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.

Trucks, Paper Roll

American Pulley Co., The, Philadelphia, Pa.
Armstrong Truck Co., North Wales, Pa.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Marion Malleable Iron Works, Marion, Ind.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Sabin Machine Co., Cleveland, Ohio.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Railroad and Cargo

American Car & Foundry Co., New York.
American Pulley Co., The, Philadelphia, Pa.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Crescent Truck Co., Lebanon, Pa.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Fairbanks Co., The, New York, N. Y.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Service Caster & Truck Co., The, Albion, Mich.
Streich, A., & Bro. Co., Oshkosh, Wis.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Scoop

American Car & Foundry Co., New York.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Sprout, Waldron & Co., Inc., Muncy, Pa.

Trucks, Steel Box

American Car & Foundry Co., New York.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.

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The new No. 9000 line of Fairbanks Hand Trucks is original in conception and in design. They possess all of inherent advantages of both the wooden and steel designed trucks, without any of their disadvantages.

In the new Fairbanks Truck the wooden frame is reinforced front and back with steel straps extending the full length of the handles; the cross bars (both curved and straight) are channel-shaped pressed steel and, instead of being mortised into the handles (which is weakening), they fit into rabbeted depressions in the top of the handles, to which they are rigidly bolted. Lock washers are used throughout. Tests have proven that this construction is many times stronger than the mortise-and-tenon construction now in common use.

Although these No. 9000 style Trucks possess great flexibility, and weigh about the same as the old full-strapped wood truck, their maximum deflection before breaking is far greater than trucks of a similar type.

Unlike the ordinary hand truck, the nose iron in the Fairbanks No. 9000 series, instead of being welded to the handle straps, is placed *over* these straps, which makes a very strong construction, while admitting of the easy replacement of the nose iron.

Another detail is the wheel guards, which are of continuous type and integral with the lowest cross bar. At this point the resistance to buckling is not dependent upon the cross bar, as the axle is placed directly back of the cross bar and serves as a brace to the truck frame. Oversize axles of high-carbon steel add materially to the truck's strength.

Leg irons are convex-shape, well braced. Wheels are slightly crown-faced, making them easier to operate and preventing damage to floors, due to the edge of the wheels gouging into the wood or concrete. Because of this crown, the edges of the wheels are less liable to chip than in a flat-faced wheel.

Trucks can also be equipped with Fairbanks No. 500 Rubber Tired Wheels, with Roller Bearings and Zerk lubrication, which eliminate noise, protect the floors and insure ease of operation.

Write for complete truck catalog. We manufacture a design to meet practically every requirement.

Greater Strength
Lighter Weight
Increased Flexibility
Better Balance
Easier Operation
Floor Protection
Quieter Running
(With No. 500 Rubber Tired Wheels)
Reduced Vibration
Greater Resiliency
Renewability

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Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
Market Forge Co., Everett, Mass.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Pollard Bros. Mfg. Co., Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Streich, A., & Bro. Co., Oshkosh, Wis.
Truscon Steel Co., Youngstown, Ohio.
West Bend Equipment Corp., West Bend, Wis.

Trucks, Warehouse

Advance Car Mover, Inc., Appleton, Wis.
American Pulley Co., The, Philadelphia.
Angle Steel Stool Co., Plainwell, Mich.
Armstrong Truck Co., North Wales, Pa.
Barrett-Cravens Co., Chicago, Ill.
Chapman Bearing & Engineering Corp., Buffalo, N. Y.
Chase Foundry & Mfg. Co., The, Columbus, Ohio.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Continental-Diamond Fibre Co., Newark, N. J.
Crescent Truck Co., Lebanon, Pa.
Economy Manufacturing Co., Philadelphia.
Electric Wheel Co., Quincy, Ill.
Elwell-Parker Electric Co., The, Cleveland.
Excelsior Plimp Truck Co., Stamford, Conn.
Fairbanks Co., The, New York, N. Y.
Fibre Specialty Mfg. Co. Division, National Vulcanized Fibre Co., Kennett Square, Pa.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Illinois Iron & Bolt Co., Carpentersville, Ill.
Lansing Co., Lansing, Mich.
Lewis-Shepard Co., Boston, Mass.
Link-Belt Co., Chicago, Ill.
McElmoyl, W. J., Co., Inc., Groveville, N. J.
Menasha Wood Split Pulley Co., Menasha, Wis.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Nutting Truck Co., Faribault, Minn.
Pollard Bros. Mfg. Co., Chicago, Ill. (All steel)
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Standard Pressed Steel Co., Jenkintown, Pa.
Streich, A., & Bro. Co., Oshkosh, Wis.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Wallace, J. D., & Co., Chicago, Ill.
West Bend Equipment Corp., West Bend, Wis.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Trucks, Welding

(See "Carriages and Trucks, Cutting and Welding")

Trycocks

(See "Columns, Water")

Tubes, Boiler

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bay State Stamping Co., Worcester, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Detroit Seamless Steel Tubes Co., Detroit, Mich.
Eiermann Floor Scraper Co., The, Brooklyn, N. Y.
Farquhar, A. B., Co., Ltd., York, Pa.
Gerard Mfg. Co., Dickson City, Pa. (Range boiler tubes)
Globe Steel Tubes Co., Milwaukee, Wis.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
National Tube Co., Pittsburgh, Pa.
Pancoast, Henry B., Co., Philadelphia, Pa.
Reading Iron Co., Philadelphia, Pa.
Ryerson, Joseph T., & Son, Chicago, Ill.
Steel and Tubes, Inc., Cleveland, Ohio.
Wheeling Steel Corp., Wheeling, W. Va.
Wolverine Tube Co., Detroit, Mich.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Tubes, Condenser

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Detroit Seamless Steel Tubes Co., Detroit.
Frasse, Peter A., & Co., Inc., New York.
Globe Steel Tubes Co., Milwaukee, Wis.
Keating, E. F., Co., New York, N. Y.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Conn.
Steel and Tubes, Inc., Cleveland, Ohio.
Wolverine Tube Co., Detroit, Mich.

Tubes, Hose Mender

Goodall Rubber Co., Philadelphia, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

Tubes, Superheater

Detroit Seamless Steel Tubes Co., Detroit, Mich.
Globe Steel Tubes Co., Milwaukee, Wis.
Keating, E. F., Co., New York, N. Y.
National Tube Co., Pittsburgh, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Steel and Tubes, Inc., Cleveland, Ohio.

Tubing, Aluminum

Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa.
Parker Appliance Co., The, Cleveland, Ohio.
Rhopac Products Corp., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Wolverine Tube Co., Detroit, Mich.

Tubing, Asbestos

Crandall Packing Co., Palmyra, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Tubing—Brass, Bronze and Copper

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Bastian-Blessing Co., Chicago, Ill.
Bristol Brass Corp., The, Bristol, Conn.
Consolidated Brass Co., Detroit, Mich.
Consolidated Metals Corp., Detroit, Mich.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa. (Copper only)
Lyon, Conklin & Co., Inc., Baltimore, Md.
Merchant & Evans Co., Philadelphia, Pa.
Mueller Brass Co., Port Huron, Mich.
National Copper & Smelting Co., Cleveland, Ohio.
Parker Appliance Co., The, Cleveland, O.
Penn Brass & Copper Co., Erie, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Revere Copper and Brass, Inc. (Dallas Division), Chicago, Ill.
Rome Brass & Copper Co., Division of Revere Copper & Brass, Inc., Rome, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Titeflex Metal Hose Corp., Newark, N. J.
Wells, A. H., & Co., Inc., Waterbury, Conn.
Wolverine Tube Co., Detroit, Mich.

Tubing, Gasket

Crandall Packing Co., Palmyra, N. Y.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Garlock Packing Co., Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Hewitt Rubber Corp., Buffalo, N. Y.
Jenkins Bros., New York, N. Y.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
National Lead Co., New York, N. Y.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Standard Packing & Rubber Co., New York.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Indestructible Gasket Co., Brooklyn.

Tubing, Glass

Friedrich & Dimmock, Millville, N. J.

Tubing, Lead, Small Sizes

Bethlehem Steel Co., Bethlehem, Pa.
Consolidated Metals Corp., Detroit, Mich.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
U. S. Indestructible Gasket Co., Brooklyn.

Tubing, Metallic, Flexible

(See "Hose or Tubing, Metallic, Flexible")

Tubing, Oil Well

Detroit Seamless Steel Tubes Co., Detroit.
Hewitt Rubber Corp., Buffalo, N. Y.
Jones & Laughlin Steel Corp., Pittsburgh.
National Tube Co., Pittsburgh, Pa.
Republic Steel Corp., Youngstown, Ohio.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant, & Co., Inc., Pittsburgh.
Titeflex Metal Hose Corp., Newark, N. J.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Tubing, Refrigeration

(See "Refrigeration Specialties")

Tubing, Rubber

Bastian-Blessing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Electric Hose & Rubber Co., Wilmington, Del.
Garlock Packing Co., The, Palmyra, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia.
Lubron Co., The, Everett, Mass.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
New York Belting & Packing Co., Passaic, N. J.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Salisbury, W. H., & Co., Inc., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Torchweld Equipment Co., Chicago, Ill.
Whitehead Bros. Rubber Co., Trenton, N. J.

Tubing, Steel

Breeze Corporations, Inc., Newark, N. J.
Cleveland Graphite Bronze Co., The, Cleveland, Ohio.
Detroit Seamless Steel Tubes Co., Detroit.
Frasse, Peter A., & Co., Inc., New York.
Fretz-Moon Tube Co., The, East Butler, Pa.
Globe Steel Tubes Co., Milwaukee, Wis.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Ivins, Ellwood, Steel Tube Works, Inc., Philadelphia, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
National Tube Co., Pittsburgh, Pa.
Parker Appliance Co., The, Cleveland, O.
Sandvik Steel, Inc., New York, N. Y.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant, & Co., Inc., Pittsburgh.
Steel and Tubes, Inc., Cleveland, Ohio.
Timken Roller Bearing Co., The, Canton, O.
Titeflex Metal Hose Co., Newark, N. J.
Toledo Steel Tube Co., The, Toledo, Ohio.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Tubs, Mortar

Jackson Manufacturing Co., Harrisburg, Pa.
Lansing Co., Lansing, Mich.
Pennsylvania Furnace & Iron Co., Warren, Pa.

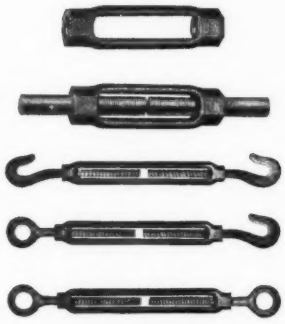
Turbines, Steam

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Coppus Engineering Corp., Worcester, Mass.
Dean-Hill Pump Co., Anderson, Ind.
DeLaval Steam Turbine Co., Trenton, N. J.
General Electric Co., Schenectady, N. Y.
Moore Steam Turbine Corp., Wellsville, N. Y.
Murray Iron Works Co., Burlington, Iowa
Pomona Pump Co., Pomona, Calif.
Sturtevant, B. F., Co., Boston, Mass.

Turnbuckles

American Steel & Wire Co., Chicago, Ill.
Boekel, Wm., & Co., Philadelphia, Pa.
Brownie Manufacturing Co., Inc., Fort Wayne, Ind.
Grabler Mfg. Co., Cleveland, Ohio.
Harper, H. M., Co., Chicago, Ill.
Laughlin, Thos. Co., The, Portland, Maine.
McMillan's, W. H., Sons, New York, N. Y.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mockbee, C. M., Cincinnati, Ohio.
Pratt, Wm. E., Mfg. Co., Joliet, Ill.
Republic Steel Corp., Youngstown, Ohio.

TURNBUCKLES
DROP FORGED



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Upson-Walton Co., The, Cleveland, Ohio.
Williamsport Wire Rope Co., Williamsport, Pa.

Turners, Log, for Sawmills

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Farquhar, A. B., Co., Ltd., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Memphis Machine Works, Memphis, Tenn.

Turntables, Automobile and Industrial Railway

American Car & Foundry Co., New York.
Canton Foundry & Machine Co., The, Canton, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.

Turntables, Overhead

Harrington Co., The, Philadelphia, Pa.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

Twine

Columbian Rope Co., Auburn, N. Y.
Fitler, Edwin H., Co., The, Philadelphia, Pa.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn.
Hooven & Allison Co., The, Xenia, Ohio.
Rauschenberger, John, Co., Milwaukee.
St. Louis Cordage Mills, St. Louis, Mo.
Samson Cordage Works, Boston, Mass.

Twine, Asbestos

(See "Yarn and Twine, Asbestos")

Unions, Air Pump

Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Fairbanks Co., The, New York, N. Y.
Jefferson Union Co., Lexington, Mass.
Walworth Co., New York, N. Y.

Unions, Ball Joint

Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Central Forging Co., The, Catawissa, Pa.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Lockport Fittings Co., Inc., Lockport, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Standard Union Co., Lockport, N. Y.
Walworth Co., New York, N. Y.

Unions, Brass and Bronze

Acheson Manufacturing Co., Rankin, Pa.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Central Forging Co., The, Catawissa, Pa.
Commonwealth Brass Corp., Detroit, Mich.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Darling Valve & Mfg. Co., Williamsport, Pa.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Essex Brass Corp., Detroit, Mich.
Grabler Mfg. Co., Cleveland, Ohio.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
King Union Co., Inc., Hillsgrove, R. I.
Lunkenheimer Co., The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Brass Co., Port Huron, Mich.
New York Brass Foundry Co., New York.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams, Franklin, Inc., Orange, N. J.

Unions, Brazing

Commonwealth Brass Corp., Detroit, Mich.
Corley Co., The, Jersey City, N. J.
Haydenville Co., The, Haydenville, Mass.
Richardson, Edro, Brass Co., The, Baltimore, Md.

Unions, Cast Iron

Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
Crane Co., Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Filer & Stowell Co., The, Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury Manufacturing Co., Monroe, N. Y.
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Co., New York, N. Y.

Unions, Flange

Acheson Manufacturing Co., Rankin, Pa.
Central Forging Co., Catawissa, Pa.
Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.

8
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6. INSPECTED, AIR-TESTED, GUARANTEED LEAKPROOF at 300 lbs. S.W.P. under most severe operating conditions.
7. In REGULAR or in EMERGENCY WORK Corley "OK-tag-onal" Unions warrant QUICKEST, SAFEST, EASIEST fitting.
8. ANY TYPE WRENCH FITS Corley "OK-tag-onal" Unions—an astonishing time saver. "The union without an equal."

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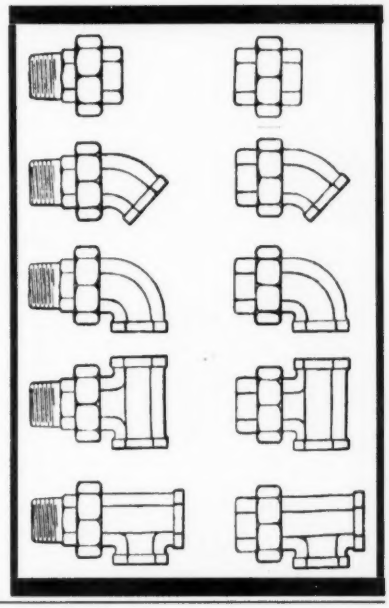
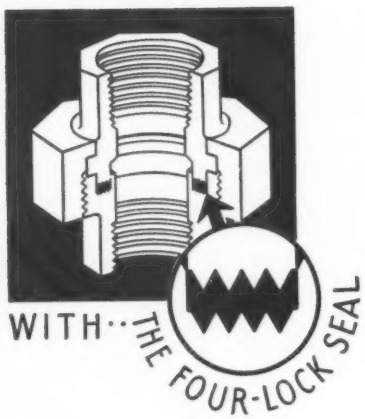


U·S·UNIONS



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Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Semler Co., Jeannette, Pa.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Unions, Flange, Extra Heavy

Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co., The, New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
M & H Valve & Fittings Co., Anniston, Ala.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Semler Co., Jeannette, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Taylor Forge & Pipe Works, Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Unions, Flared

Commonwealth Brass Corp., Detroit, Mich.
Corley Co., The, Jersey City, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
Parker Appliance Co., The, Cleveland, O.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Unions, Hydraulic

Acheson Manufacturing Co., Rankin, Pa.
Central Forging Co., Catawissa, Pa.
Corley Co., The, Jersey City, N. J.
Dart, E. M., Mfg. Co., Providence, R. I.
Dudgeon, Richard, Inc., New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jefferson Union Co., Lexington, Mass.
Newbury Manufacturing Co., Monroe, N. Y.
New York Brass Foundry Co., New York.
Pittsburgh Brass Mfg. Co., Pittsburgh.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Unions, Malleable Iron

Connor, Miles A., Lockport, N. Y.
Corley Co., The, Jersey City, N. J.
Corley-DeWolfe Co., Elizabeth, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Fairbanks Co. The, New York, N. Y.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
King Union Co., Inc., Hillsgrove, R. I.
Lockport Fittings Co., Lockport, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Standard Union Co., Lockport, N. Y.
Stockham Pipe & Fittings Co., Birmingham, Ala.
United Superior Union Co., Inc., Brooklyn.
Walworth Co., New York, N. Y.

Unions, Malleable, Navy

Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Malleable Iron Fittings Co., Branford, Conn.
Rhode Island Fittings Co., Hillsgrove, R. I.
Walworth Co., New York, N. Y.

Unions, Malleable, Railroad

Corley Co., The, Jersey City, N. J.
Crane Co., Chicago, Ill.
Dart, E. M., Mfg. Co., Providence, R. I.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Grabler Mfg. Co., Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
King Union Co., Inc., Hillsgrove, R. I.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Rhode Island Fittings Co., Hillsgrove, R. I.
Walworth Co., New York, N. Y.

Unions, Soldering

American Foundry & Mfg. Co., St. Louis.
Commonwealth Brass Corp., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Unions, Steam Hose

Corley Co., The, Jersey City, N. J.
Knox Mfg. Co., Philadelphia, Pa.
Mulconroy Co., Inc., Philadelphia, Pa.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Richardson, Edro, Brass Co., The, Baltimore, Md. (Bronze)
Walworth Co., New York, N. Y.

Unions, Steel, Forged

Central Forging Co., The, Catawissa, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Parker Appliance Co., The, Cleveland, O.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Unions, Steel, Pressed

Keating, E. F., Co., New York, N. Y.

Unions, Swing

Bordo, L. J., Co., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Connor, Miles A., Lockport, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.

Unloaders, Air Compressor

H. D. B. Corporation, Chicago, Ill.
Paasche Airbrush Co., Chicago, Ill.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.

Unloaders, Car

Beaumont, R. H., Co., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Chicago Tubing & Braiding Co., Maywood, Ill.
Fairfield Engineering Co., Marion, Ohio.
Godfrey Conveyor Co., Elkhart, Ind.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sutorbilt Corp., Los Angeles, Calif.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Valve Housings

(See "Housings, Valve")

Valve Reseating Tools

(See "Reseating Tools, Valve and Bibb")

Valve Wheels

(See "Wheels, Valve")

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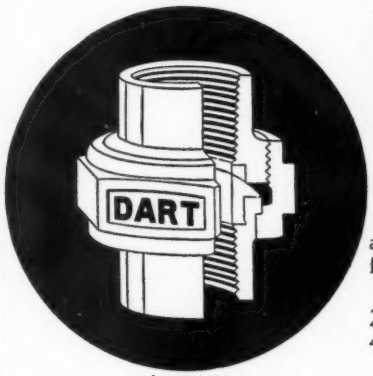

Fig. 0832
Female

DART UNIONS

BRONZE-TO-BRONZE

Dart Union Fittings (Bronze-To-Bronze)

Dart Union Fittings are made from heavy high-grade malleable iron castings, have extra strong shoulders on the swivel ends and in the nuts and TWO BRONZE SEATS which are accurately machined and carefully ground, giving double protection to the joint.

Recommended for 300-lb. w.s.p. sizes 1/8 inch to 2 inch, inclusive; 2 1/2 in. to 4 in.—250 lb. w.s.p., where temperature is not in excess of 450 degrees Fahrenheit.

Dart Female Union

This style sent when not otherwise specified

Size, inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 0832—Plain ... List	$0.38	$0.30	$0.40	$0.50	$0.60	$0.80	$1.20	$1.60	$2.00	$4.00	$6.00	$ 9.00	$13.50
Fig. 0832—Galv ... List	.48	.38	.51	.64	.77	1.02	1.53	2.04	2.55	5.10	7.64	11.47	17.20

Adapted to high or low pressure; for steam, gas, water or air.

Fig. 0834
Female

Union Elbow

This type is adapted to use wherever a union is desired near an elbow. It gives a neat, close connection, saving both labor and fittings.

Size, inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 0834—Plain ... List	$0.52	$0.70	$0.87	$1.05	$1.40	$2.10	$2.80	$3.49	$5.59	$ 8.38
Fig. 0834—Galv ... List	.68	.91	1.14	1.36	1.82	2.73	3.63	4.54	7.27	10.90
Fig. 0835—Plain ... List	.52	.70	.87	1.05	1.40	2.10	2.80	3.49	5.59	8.38
Fig. 0835—Galv ... List	.68	.91	1.14	1.36	1.82	2.73	3.63	4.54	7.27	10.90

Fig. 0835
Male and Female

Tee Union on the Outlet

Figure 0836—Female. Figure 0837—Male and Female

Size, inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Fig. 0836—Plain ... List	$0.58	$0.77	$0.96	$1.15	$1.54	$2.31	$3.08	$3.84
Fig. 0836—Galv ... List	.75	1.00	1.25	1.50	2.00	3.00	4.00	5.00
Fig. 0837—Plain ... List	.58	.77	.96	1.15	1.54	2.31	3.08	3.84
Fig. 0837—Galv ... List	.75	1.00	1.25	1.50	2.00	3.00	4.00	5.00

Fig. 0836
Female

Fig. 0837
Male and Female

Tee Union on the Run

Figure 0838—Female. Figure 0839—Male and Female

Size, inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Fig. 0838—Plain ... List	$0.58	$0.77	$0.96	$1.15	$1.54	$2.31	$3.08	$3.84
Fig. 0838—Galv ... List	.75	1.00	1.25	1.50	2.00	3.00	4.00	5.00
Fig. 0839—Plain ... List	.58	.77	.96	1.15	1.54	2.31	3.08	3.84
Fig. 0839—Galv ... List	.75	1.00	1.25	1.50	2.00	3.00	4.00	5.00

Fig. 0838
Female

Male and Female Union—Air Pump Union

Use these fittings instead of a union and a nipple.

Size, inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 0840—Plain ... List	$0.44	$0.58	$0.73	$0.87	$1.16	$1.75	$2.33	$2.91	$4.66	$6.99
Fig. 0840—Galv ... List	.57	.76	.95	1.14	1.51	2.27	3.03	3.79	6.06	9.09

Size, inches	3/4x1	1x1 1/4	1 1/4x1 1/2	1 1/2x2
Fig. 0841—Plain ... List	$1.05	$1.40	$2.10	$2.80
Fig. 0841—Galv ... List	1.36	1.82	2.73	3.63

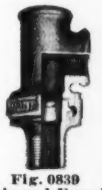

Fig. 0839
Male and Female

All Iron Union

For use on lines such as acid, chemicals, etc., where the bronze seated union is not desirable.

Size, inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Fig. 0844—Plain ... List	$0.38	$0.30	$0.40	$0.50	$0.60	$0.80	$1.20	$1.60	$2.00

Fig. 0840
Male and Female

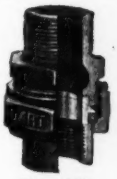

Fig. 0841
Air Pump

Regular Flange Union—Cast Iron

Size, inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2
Fig. 0833—Plain ... List	$0.88	$0.96	$1.28	$1.93	$2.57	$3.21	$5.13	$ 7.69	$ 9.62
Fig. 0833—Galv ... List	1.19	1.30	1.73	2.60	3.46	4.33	6.92	10.39	12.98

Size, inches	4	4 1/2	5	6	7	8	9	10	12
Fig. 0833—Plain ... List	$12.02	$14.03	$16.03	$20.04	$24.04	$28.85	$34.62	$46.16	$73.73
Fig. 0833—Galv ... List	16.23	18.93	21.64	27.05	32.46	38.95	46.74	62.32	99.53

All flanges furnished with bolts and nuts. Flanges made with special threads when required.

Fig. 0844
All Iron

Extra Heavy Flange Union—Cast Iron

Size, inches	1 1/2	2	2 1/2	3	4	6	8
Fig. 0833—Plain ... List	$3.42	$4.27	$6.84	$10.26	$16.03	$26.71	$53.37
Fig. 0833—Galv ... List	4.62	5.77	9.23	13.85	21.64	36.06	72.12

Fig. 0833

E. M. DART MFG. CO. Thurbers Ave.—Eddy St. PROVIDENCE, R. I.

General Distributors: The FAIRBANKS COMPANY, 393-399 Lafayette St., New York, N. Y.
Canadian Factory: DART UNION CO., Ltd., Toronto, Canada

Valves, Acid Resisting

(See "Valves, Special Metal")

Valves, Air Gun

American Injector Co., Detroit, Mich.
Cleveland Rock Drill Co., The, Cleveland.
H. D. B. Corporation, Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Ohio Brass Co., Mansfield, Ohio.
Page Belting Co., Concord, N. H.
Paasche Airbrush Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Simplex Spray Equipment Co., Chicago.
United States Air Compressor Co., Cleveland, Ohio.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Air Line

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brunner Manufacturing Co., Utica, N. Y.
Briggs & Stratton Corp., Milwaukee, Wis.
Buffalo Meter Co., Buffalo, N. Y.
Cleveland Rock Drill Co., The, Cleveland.
Crane Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Dixon Valve & Coupling Co., Philadelphia.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
H. D. B. Corporation, Chicago, Ill.
Hannifin Mfg. Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Marco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Paasche Airbrush Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
R. S. Products Corp., Philadelphia, Pa.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Air, Radiator

Atlas Brass Foundry Co., The, Columbus, Ohio.
Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
United States Air Compressor Co., Cleveland, Ohio.
Williams, D. T., Valve Co., The, Cincinnati.

Valves, Air, for Water Mains

Automatic Primer Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Keating, E. F., Co., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.

Valves, Air Release, for Water and Oil Lines

Automatic Primer Co., Chicago, Ill.
Buffalo Meter Co., Buffalo, N. Y.
Wright-Austin Co., Detroit, Mich.

Valves, Alarm, for Sprinkler Systems

Central Automatic Sprinkler Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.

Valves, Altitude

Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Schade Valve Mfg. Co., Pihladelphia, Pa.

Valves, American Water Works Association Standard

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Marsh, Jas. P., & Co., Chicago, Ill.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
S. E. T. Valve and Hydrant Co., New York.
South Park Foundry & Machine Co., South St. Paul, Minn.
Walworth Co., New York, N. Y.

Valves, Anti-Freezing

Haydenville, Co., The, Haydenville, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.

Valves, Back Pressure

Atwood & Morrill Co., Salem, Mass.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, O.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.

Valves, Balanced Lever

Belfield, H., Co., Philadelphia, Pa.
Davis Regulator Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, O.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Nason Manufacturing Co., New York, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Swartwout Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Watts Regulator Co., Lawrence, Mass.

Valves, Blow-Off

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bordo, L. J., Co., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Farrel-Birmingham Co., Inc., Ansonia, Conn.
H.D.B. Corporation, Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Tessmer Machine & Tool Co., Detroit, Mich.
United States Air Compressor Co., Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Valves, Blower

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Hennebohle, Frank, Chicago, Ill.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Leiman Bros., Inc., Newark, N. J.
Lunkenheimer Co., The, Cincinnati, Ohio.
Moak Machine & Tool Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Yarnall-Waring Co., Philadelphia, Pa.

Valves, Brass or Bronze—Angle, Gate, Check and Globe

American Injector Co., Detroit, Mich.
Bastian-Blessing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa. (Angle, check and globe)
Bordo, L. J., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Central Valve Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
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Gate
Angle
Check
Regrinding and Removable Discs
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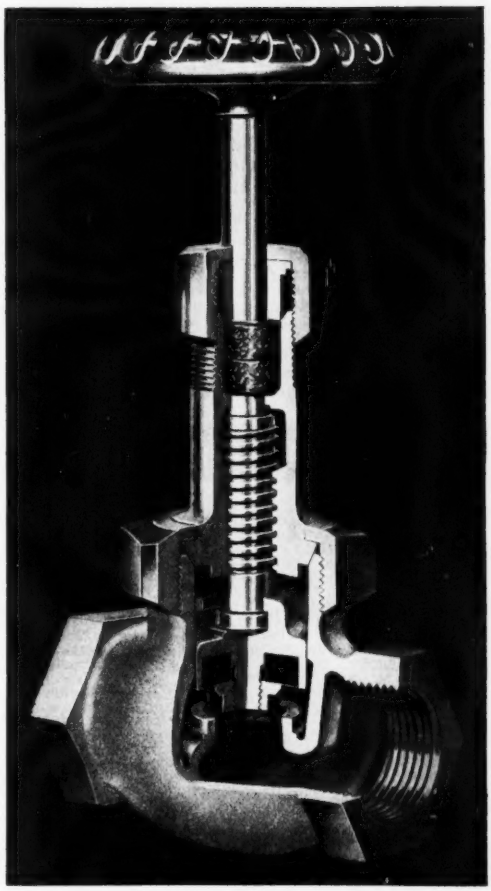

These *improved* Fairbanks Bronze Valves are designed to reduce maintenance trouble and expense. They possess many important features such as:

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2. The disc ring not only serves efficiently in the control of steam but also on hot and cold water. It is composed of a very high percentage of long-fibered asbestos, compounded with the necessary vulcanizing elements and given a special cure that produces a most efficient and reliable disc ring.
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4. The stem is of rolled rod bronze, averaging 65,000 pounds tensile strength. More than five clean-cut Acme threads are at all times in contact with the bonnet.
5. The union nut is of heavy bronze with large hexes for a firm wrench grip and permits removal of bonnet with less risk of damage.
6. The protected top seat above the threads on stem gives greater assurance of a clean, tight joint when the valve is fully opened for the purpose of repacking the valve under pressure.
7. The ventilated, malleable-iron handwheel assures a firm, cool grip. The bronze nut holding the wheel is well below the wheel rim surface, thus protecting the hand. This nut is securely held with a lock washer.

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Williams, William E., Valve Corp., New York, N. Y.

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Ohio Brass Co., Mansfield, Ohio.
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Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Prier Brass Mfg. Co., Kansas City, Mo.
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Rickersberg Brass Co., Cleveland, Ohio.
Scott Valve Manufacturing Co., Detroit, Mich.
Triumph Brass Co., Columbus, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Butterfly

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Davis Regulator Co., Chicago, Ill.
Hoppes Water Wheel Co., The, Springfield, Ohio.
Keating, E. F., Co., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
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Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
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Schutte & Koerting Co., Philadelphia, Pa.
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Fairbanks Co., The, New York.
Foster Engineering Co., Newark, N. J.
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Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
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Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit, Mich.
Trill Indicator Co., Corry, Pa.
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Kennedy Valve Mfg. Co., The, Elmira, N. Y.
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M & H Valve & Fittings Co., Anniston, Ala.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Check, Air

Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
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Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Morrison Bros., Dubuque, Iowa.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
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Scott Valve Manufacturing Co., Detroit.
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United States Air Compressor Co., Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
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Williams Gauge Co., The, N. S., Pittsburgh.
Williams, William E., Valve Corp., New York, N. Y.

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Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Check, Vertical

American Injector Co., Detroit, Mich.
Axelson Manufacturing Co., Ltd., Los Angeles, Calif.
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Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
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Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams Gauge Co., The, N. S., Pittsburgh, Pa.

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Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Walworth Co., New York, N. Y.

Valves, Chronometer

Fisher Governor Co., The, Marshalltown, Iowa.
Judson Governor Co., The, Rochester, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Scott Valve Manufacturing Co., Detroit, Mich.

Valves, Coke Oven

Bartlett Hayward Co., The, Baltimore, Md.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Merco Nordstrom Valve Co., San Francisco, Calif.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati Ohio.

Valves, Controlling, Waterworks Supply

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Foxboro Co., The, Foxboro, Mass.
Hays Manufacturing Co., Erie, Pa.
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M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
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Valves, Cross, Brass and Bronze

Belfield, H., Co., Philadelphia, Pa.
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Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fititngs Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Cross, Iron Body

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Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Dry Pipe and Check, for Sprinkler Systems

Central Automatic Sprinkler Co., Philadelphia, Pa.
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Hersey Manufacturing Co., Boston, Mass.
Jenkins Bros., New York, N. Y.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Brass Co., Port Huron, Mich.
Walworth Co., New York, N. Y.

Valves, Electric Motor Operated

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Davis Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
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Schutte & Koerting Co., Philadelphia, Pa.
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Davis Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Sutorbilt Corp., Los Angeles, Calif.
Walworth Co., New York, N. Y.
Worthington Pump and Machinery Corp., Harrison, N. J.

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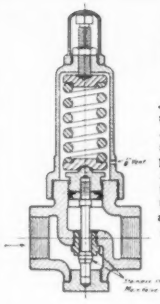
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Hays Manufacturing Co., Erie, Pa.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.



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Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Fire Line

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Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
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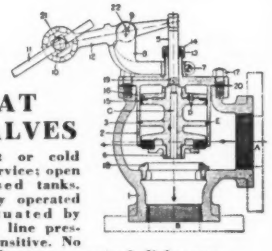
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Ohio Injector Co., The, Wadsworth, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Safety Fire Extinguisher Co., The, New York, N. Y.
Scully Steel & Iron Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

Valves, Flap and Shear

Clow, James B., & Sons, Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
South Park Foundry & Machine Co., South St. Paul, Minn.

Valves, Float

Belfield, H., Co., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.



FLOAT VALVES

For hot or cold water service; open or closed tanks. Auxiliary operated and actuated by supply line pressure. Sensitive. No large floats required. Valve openings ¾" to 8". Other automatic liquid level control devices.

FOSTER ENG. CO. FOSTER NEWARK N. J.

Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Midland Mfg. Co., Ft. Worth, Tex.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Perkes, Charles, Co., Philadelphia, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rockford Brass Works, Rockford, Ill.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

Valves, Foot, and Strainers

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Morrison Bros., Dubuque, Iowa.
Newbury, Jay H., & Son, Inc., Goshen, N. Y.
Ohio Brass Co., Mansfield, Ohio.
Perkes, Charles, Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Roper, Geo. D., Corp., Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Swaby Mfg. Co., Chicago, Ill.
Taylor Forge & Pipe Works, Chicago, Ill.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Gas Gate

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Morrison Bros., Dubuque, Iowa.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Walworth Co., New York, N. Y.

Valves, Gas, Natural

Barco Manufacturing Co., Chicago, Ill.
Bastian-Blessing Co., Chicago Ill.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Star Drilling Machine Co., Akron, Ohio.
Walworth Co., New York, N. Y.

Valves, Gas Plant

Barco Manufacturing Co., Chicago, Ill.
Bartlett Hayward Co., The, Baltimore, Md.
Bastian-Blessing Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Company, The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Gas Regulating

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Cutler-Hammer, Inc., Milwaukee, Wis.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
R. S. Products Corp., Philadelphia, Pa.
Torchweld Equipment Co., Chicago, Ill.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.

Valves, Gas Relief

Bastian-Blessing Co., Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.

Valves, Gasoline

Barco Manufacturing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Lubricator Co., Detroit, Mich.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hays Manufacturing Co., Erie, Pa.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Illinois Scully Steel Warehouse Co., Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Mueller Brass Co., Port Huron, Mich.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.

Valves, Gate, Waterworks

American Foundry & Mfg. Co., St. Louis.
Bordo, L. J., Inc., Glenside, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich. (Gate only)
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rickersberg Brass Co., The, Cleveland, O.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Gear Controlled

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Globe, Lock and Shield

American Injector Co., Detroit, Mich.
Belfield, H., Co., Philadelphia, Pa.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Rockford Brass Works, Rockford, Ill.
Sarco Co., Inc., New York, N. Y.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Hard Rubber

Darcoid Co., Inc., New York, N. Y.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Standard Packing & Rubber Co., New York.
Union Rubber & Asbestos Co., Trenton, N. J.

Valves, High Pressure, for Oxygen and Carbonic Acid Gas

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York.
Kerotest Manufacturing Co., Pittsburgh.
Linde Air Products, Inc., The, New York.
Mueller Brass Co., Port Huron, Mich.
Parker Appliance Co., The, Cleveland, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Hose

Allen, W. D., Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dallett Co., The, Philadelphia, Pa.
Darling Valve & Mfg. Co., Williamsport, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.

Lunkenheimer Co., The, Cincinnati, Ohio.
Mueller Co., Decatur, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Republic Rubber Co., The, Youngstown, O.
Scott Valve Mnufacturing Co., Detroit.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Hydrant

Bordo, L. J., Inc., Glenside, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Dick, R. & J., Co., Inc., Passaic, N. J.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Hays Manufacturing Co., Erie, Pa.
Home Rubber Co., Trenton, N. J.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
M & H Valve & Fittings Co., Anniston, Ala.
Mueller Co., Decatur, Ill.
Philadelphia Belting Co., Philadelphia, Pa. (Leather)
Victor Balata & Textile Belting Co., New York, N. Y.
Vogt Brothers Mfg. Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Hydraulic—Gate, Globe, Angle and Check

Belfield, H., Co., Philadelphia, Pa. (Globe, angle and check)
Brunswick-Kroeschell Co., New Brunswick, N. J.
Cardwell Machine Co., The, Richmond, Va.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Dudgeon, Richard, Inc., New York, N. Y.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraoplis, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill. (Check valves only)
Lourie Manufacturing Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, Ohio.
Morrison Bros., Dubuque, Iowa.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Williams, D. T., Valve Co., The, Cincinnati.
Yarnall-Waring Co., Philadelphia, Pa.

Valves, Hydraulically Operated

Bartlett Hayward Co., The, Baltimore, Md.
Bethlehem Steel Co., Bethlehem, Pa.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown Iowa.
Foster Engineering Co., Newark, N. J.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.
Yarnall-Waring Co., Philadelphia, Pa.

Valves, Indicator

American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Consolidated Brass Co., Detroit, Mich.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davison Combustion Co., Pittsburgh, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Fairbanks Co., The, New York, N. Y.
Hays Manufacturing Co., Erie, Pa.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Robertson, James L., & Sons, New York.
Walworth Co., New York, N. Y.

Valves, Inlet, Packless

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Everlasting Valve Co., Jersey City, N. J.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kerotest Manufacturing Co., Pittsburgh.
Marsh, Jas. P., & Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Brass Co., Port Huron, Mich.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sarco Co., Inc., New York, N. Y.

Valves and Fittings, Irrigation

Illinois Malleable Iron Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Walworth Co., New York, N. Y.

Valves, Lead and Lead Lined

National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Schutte & Koerting Co., Philadelphia, Pa.

Valves, Locking

Bordo, L. J., Co., Inc., Glenside, Pa.
Everlasting Valve Co., Jersey City, N. J.
Hays Manufacturing Co., Erie, Pa.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Lubricated

Barco Manufacturing Co., Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Md.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco.
Mueller Co., Decatur, Ill.

Valves, Marine

Crane Co., Chicago, Ill.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Perkins Marine Lamp Corp., Brooklyn.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Mixing

(See "Cocks and Valves, Mixing")

Valves, Needle

Bastian-Blessing Co., Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Non-Metallic Disc—Globe, Angle, Check and Quick Operating

(See also "Valves, Brass or Bronze—Renewable Composition Disc" and "Valves, Quick Opening and Closing")

Lunkenheimer Co., The, Cincinnati, Ohio.

Valves, Offset

Bastian-Blessing Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves for Oil Burning Furnaces

Bastian-Blessing Co., Chicago, Ill.
Davison Combustion Co., Pittsburgh, Pa.
Diamond Iron Works, Inc., Minneapolis.
Efficiency Engineering Co., Boston, Mass.
Essex Brass Corp., Detroit, Mich.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., New York, N. Y.
Gorton Heating Corp., Cranford, N. J.
Hauck Manufacturing Co., Brooklyn, N. Y.
Haydenville Co., The, Haydenville, Mass.
Imperial Brass Mfg. Co., Chicago.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mercoid Corp., The, Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co. Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roberts Brass Mfg. Co., The, Detroit.
R. S. Products Corp., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Walworth Co., New York, N. Y.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Plug

(See "Cocks, Plug")

Valves, Plug Type, Globe and Angle

Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Hennebohle, Frank, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Mueller Co., Decatur, Ill.
Ohio Injector Co., The, Wadsworth, Ohio.
Parker Appliance Co., The, Cleveland, O.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Scott Valve Mfg. Co., Detroit, Mich.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Pop Safety

Bastian-Blessing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Consolidated Brass Co., Detroit.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
H. D. B. Corporation, Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Lonergan, J. E., Co., Philadelphia, Pa.

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LOW PRESSURE
POP SAFETY VALVE
Built Entirely of Heavy Brass Castings. Oil Tempered Steel Spring, Udylite Plated. Conforms to A. S. M. E. Specifications.
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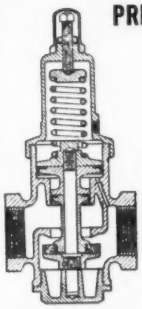
PRESSURE REDUCING VALVES
TYPE U
piston or diaphragm actuated
For reducing water or air up to 300 pounds initial pressure. Delivery pressure 10 to 300 pounds with piston type; from 5 to 100 pounds with diaphragm type. Sizes ½" to 12". Complete line of reducing valves for all services.
FOSTER ENG. CO. FOSTER NEWARK N. J.

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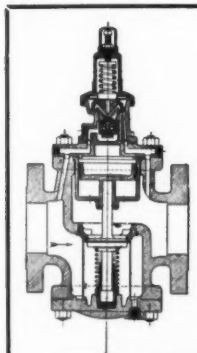
VEELOS
Balata Valves
The same materials and methods of construction that make VEELOS Balata Belting* the "strongest belting made" are used in VEELOS Balata Pump Valves.
Made in all thicknesses and any diameter requested.
A profitable item for distributors. Take advantage of the VEELOS reputation for quality products.
Manheim Manufacturing and Belting Company
Manheim, Pennsylvania
New York City 350 Broadway — Chicago, Ill. 407 So. Dearborn St.
*See our advertisement on VEELOS Belting on another page.

Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Paasche Airbrush Co., Chicago, Ill.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Scott Valve Manufacturing Co., Detroit.
Simplex Spray Equipment Co., Chicago.
Walworth Co., New York, N. Y.

Valves, Pressure Reducing and Regulating

Bastian-Blessing Co., Chicago, Ill.
Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Foster Engineering Co., Newark, N. J.
Hannifin Manufacturing Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Neilan Co., Ltd. (Division of Mason Regulator Co.), Los Angeles, Calif.
Parker Appliance Co., The, Cleveland, O.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Sight Feed Generator Co., Richmond, Ind.
Simplex Spray Equipment Co., Chicago.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Swartwout Co., The, Cleveland, Ohio.


AUTOMATIC PRESSURE REDUCING VALVES
G2—G2S
For steam or air. Initial pressures up to 900 pounds, 750 degrees F. total temperatures. Precise, rugged reducing valves. Sizes ½" to 12". Complete line of reducing valves for all services
FOSTER ENG. CO. FOSTER NEWARK N. J.

Tryco Products, Inc., Westfield, Mass.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Watson-Stillman Co., The, Roselle, N. J.
Watts Regulator Co., Lawrence, Mass.

Valves, Pump—Leather, Rubber, Fibre and Composition

Belmont Packing & Rubber Co., Philadelphia, Pa.
Bowser, S. F., & Co., Inc., Fort Wayne, Ind.
Cook, H. N., Belting Co., San Francisco.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Darcoid Co., Inc., The, New York, N. Y.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Dick, R. & J., Co., Inc., Passaic, N. J.
Elkhart Rubber Works, Elkhart, Ind.
Excel Asbestos Mfg. Co., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Graton & Knight Co., Worcester, Mass.
Himmelein & Bailey, Inc., Camden, N. J.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mechanical Rubber Co., The, Passaic, N. J.
Michigan Leather Packing Co., Detroit.
New York Belting & Packing Co., Passaic, N. J.
Nott, W. S., Co., Minneapolis, Minn.
Perkins Marine Lamp Corp., Brooklyn, N. Y.
Philadelphia Belting Co., Philadelphia, Pa. (Leather)
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.

PUMP VALVES
Standard, general utility grades.
Special qualities made to customer specifications.
Any dimensions required.
Prompt shipments.
Elkhart Rubber Works
Elkhart, Indiana

Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
Standard Packing & Rubber Co., New York.
U. S. Indestructible Gasket Co., Brooklyn.
Walworth Co., New York, N. Y.
Whitehead Bros. Rubber Co., Trenton, N. J.
Williams Gauge Co., The, N. S. Pittsburgh.

Valves, Pump Regulating

Burrows, F. A., Co., York, Pa.
Cardwell Machine Co., The, Richmond, Va.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford Regulator Valve Co., Inc., New York.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Kieley & Mueller, Inc., New York, N. Y.
Klipfel Manufacturing Co., Chicago, Ill.
Leslie Co., Lyndhurst, N. J.
Mason Regulator Co., Boston, Mass.
Perkins Marine Lamp Corp., Brooklyn.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Swartwout Co., The, Cleveland, Ohio.
Walworth Co., The, New York, N. Y.
Watts Regulator Co., Lawrence, Mass.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Quick Opening and Closing

Bordo, L. J., Co., Inc., Glenside, Pa.
Briggs & Stratton Corp., Milwaukee, Wis.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Davis Regulator Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Gorton Heating Corp., Cranford, N. J.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh Valve Co., Dunkirk, N. Y.
Merco Nordstrom Valve Co., San Francisco.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Morrison Bros., Dubuque, Iowa.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm. Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
R. S. Products Corp., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves, Radiator, Air, Automatic

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Radiator, Graduated

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
D. G. C. Trap & Valve Co., Inc., New York.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Walworth Co., New York, N. Y.

Valves, Radiator, Packless

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
D. G. C. Trap & Valve Co., Inc., New York.
Detroit Lubricator Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Keating, E. F., Co., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Messmer Brass Co., St. Louis, Mo.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, Ohio.
Sarco Co., Inc., New York, N. Y.

Valves, Radiator, Steam

Bishop & Babcock Sales Co., The, Cleveland, Ohio.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
Fairbanks Co., The, New York, N. Y.
General Brass Co., Detroit, Mich.
Gorton Heating Corp., Cranford, N. J.
Grinnell Co., Inc., Providence, R. I.
Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Keating, E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Jas. P., & Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Ohio Brass Co., Mansfield, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Sarco Co., Inc., New York, N. Y.
Scott Valve Manufacturing Co., Detroit.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Reducing-Steam, Air and Hydraulic

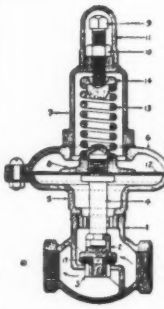
(See "Valves, Pressure Reducing and Regulating")

Valves, Relief

Automatic Primer Co., Chicago, Ill.
Bastian-Blessing Co., Chicago, Ill.
Bastian-Morley Co., LaPorte, Ind.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.

RELIEF VALVES

Class S



Diaphragm Actuated type of relief valve for service on steam, water, gas, oil, ammonia, etc. Recommended for pressures up to 130 pounds. Six sizes ranging from ½" to 2". Other types of relief valves for all classes of service.

FOSTER

FOSTER ENG. CO.
Newark, N. J.

Foster Engineering Co., Newark, N. J.
Imperial Brass Manufacturing Co., Chicago, Ill.
Keating, E. F., Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co. The, Cincinnati, Ohio.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Marsh, Jas. P., & Co., Chicago, Ill.
Morganmade, Inc., Keene, N. H.
Mueller Co., Decatur, Ill.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill.
Schade Valve Mfg. Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Sutorbilt Corp., Los Angeles, Calif.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Safety, Shut-Off

Bastian-Blessing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Diamond Iron Works, Inc., Minneapolis.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Hennebohle, Frank, Chicago, Ill.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N .Y.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Scott Valve Manufacturing Co., Detroit.
Swartwout Co., The, Cleveland, Ohio.
Tryco Products, Inc., Westfield, Mass.
Walworth Co., New York, N. Y.

Valves, Safety, for Welding Equipment

Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Imperial Brass Manufacturing Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
K-G Welding & Cutting Co., Inc., New York, N. Y.
Victor Welding Equipment Co. Division of Victor Equipment Co., San Francisco.

Valves, Semi-Steel—Globe, Gate, Angle and Check

(See "Valves, Cast Iron or Semi-Steel—Globe, Gate, Angle and Check")

Valves, Siamese

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.

Valves, Sluice

Clow, James B., & Sons, Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.

Valves, Solenoid

Cutler-Hammer Mfg. Co., Milwaukee, Wis.
Edward Valve Mfg. Co., East Chicago, Ind.
General Electric Co., Schenectady, N. Y.
Hannifin Manufacturing Co., Chicago, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Michigan Smelting & Refining Co., Detroit.
R. S. Products Corp., Philadelphia, Pa.

Valves, Special Metal

Ampco Metal, Inc., Milwaukee, Wis.
Barco Manufacturing Co., Chicago, Ill.
Bearium Metals Corporation, Rochester, N. Y.
Belfield, H., Co., Philadelphia, Pa.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Merco Nordstrom Valve Co., San Francisco, Calif.
National Lead Co., New York, N. Y.
Ohio Injector Co., The, Wadsworth, Ohio.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia.
Scott Valve Manufacturing Co., Detroit.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.

Valves, Standpipe

Allen, W. D., Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fairbanks Co., The, New York, N. Y.
Grinnell Co., Inc., Providence, R. I.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Walworth Co., New York, N. Y.

Valves, Steam Feed, Sawmill

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

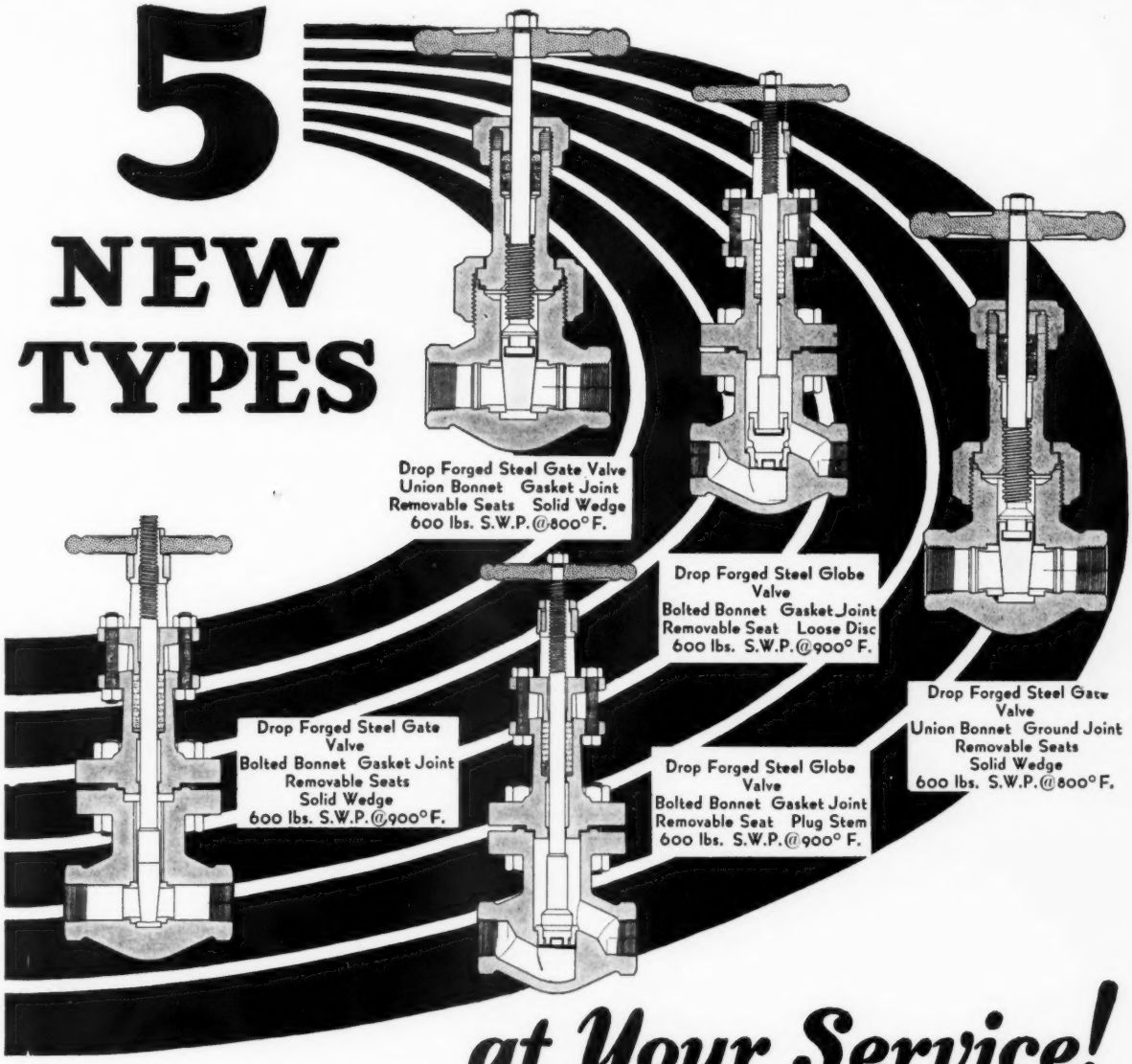
Valves, Steel, Cast—Globe, Gate, Angle and Check

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Keating E. F., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Klingerit, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.
Williams, William E., Valve Corp., New York, N. Y.

Valves, Steel, Forged—Globe, Gate, Angle and Check

Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Keating, E. F., Co., New York, N. Y.

5 NEW TYPES



at Your Service!

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Kansas City

Put them to work in your plant!
They will give long uninterrupted service with absolute safety under the most trying conditions. Positive control and quick release are characteristic of Vogt valves. Strength and endurance, that drop forging *alone* can give, are developed to the highest degree.
Make real valve economy and satisfactory performance certain by specifying VOGT DROP FORGED.

HENRY VOGT MACHINE COMPANY
LOUISVILLE Incorporated KENTUCKY

Manufacturers of: Drop Forged Steel Valves and Fittings, Oil Refinery Equipment. Water Tube Boilers, Ice Making and Refrigerating Machinery, Heat Exchangers

Vogt *drop forged* STEEL VALVES

Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Co., New York, N. Y.
Watson-Stillman Co., The, Roselle, N. J.

Valves, Stop, Emergency

Crane Co., Chicago, Ill.
Davis Regulator Co., Chicago, Ill.
Diamond Iron Works, Inc., Minneapolis.
Everlasting Valve Co., Jersey City, N. J.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Co., New York, N. Y.

Valves, Thermostatic

Bastian-Morley Co., LaPorte, Ind.
Bristol Co., The, Waterbury, Conn.
Crane Co., Chicago, Ill.
Gorton Heating Corp., Cranford, N. J.
Klipfel Manufacturing Co., Chicago, Ill.
Milwaukee Valve Co., Milwaukee, Wis.
Minneapolis Honeywell Regulator Co., Minneapolis, Minn.
Powers Regulator Co., The, Chicago, Ill.
R. S. Products Corp., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.

Valves, 3-Way and 4-Way

Barco Manufacturing Co., Chicago, Ill.
Belfield, H., Co., Philadelphia, Pa.
Bordo, L. J., Co., Inc., Glenside, Pa.
Crane Co., Chicago, Ill.
Galland-Henning Manufacturing Co., Milwaukee, Wis.
Hannifin Manufacturing Co., Chicago, Ill.
Hays Manufacturing Co., Erie, Pa. (3-way only)
Hennebohle, Frank, Chicago, Ill.
Homestead Valve Mfg. Co., Coraopolis, Pa.
Hunt, C. B., & Son, Salem, Ohio.
Hydraulic Press Mfg. Co., The, Mount Gilead, Ohio.
Imperial Brass Manufacturing Co., Chicago, Ill.
Judson Governor Co., The, Rochester, N. Y.
Keating, E. F., Co., New York, N. Y.
Keckley, O. C., Co., Chicago, Ill.
Kerotest Manufacturing Co., Pittsburgh.
Kieley & Mueller, Inc., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Merco Nordstrom Valve Co., San Francisco, Calif.
Mueller Brass Co., Port Huron, Mich.
Parker Appliance Co., The, Cleveland, O.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Ruemelin Mfg. Co., Milwaukee, Wis.
Walworth Co., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa. (Hydraulic operating)
Williams, William E., Valve Corp., New York, N. Y.

Valves, Throttle

Clow, James B., & Sons, Chicago, Ill.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Foster Engineering Co., Newark, N. J.
Hennebohle, Frank, Chicago, Ill.
Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
Keating, E. F., Co., New York, N. Y.
Kerotest Manufacturing Co., Pittsburgh.
Klingerit, Inc., New York, N. Y.
Knox Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Manufacturing Co., Detroit.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, Ohio.

Valves, Underwriters'

Allen, W. D., Mfg. Co., Chicago, Ill.
American Valve Co., Long Island City, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
General Brass Co., Detroit, Mich.
Grinnell Co., Inc., Providence, R. I.
Imperial Brass Manufacturing Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
M & H Valve & Fittings Co., Anniston, Ala.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Milwaukee Valve Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Safety Fire Extinguisher Co., The, New York, N. Y.
Walworth Co., New York, N. Y.

Valves, Vacuum

Belfield, H., Co., Philadelphia, Pa.
Detroit Lubricator Co., Detroit, Mich.
Efficiency Engineering Co., Boston, Mass.
Everlasting Valve Co., Jersey City, N. J.
Fairbanks Co., The, New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hennebohle, Frank, Chicago, Ill.
Hunt, C. B., & Son, Salem, Ohio.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Leiman Bros., Inc., Newark, N. J.
Marsh, Jas P., & Co., Chicago, Ill.
Merco Nordstrom Valve Co., San Francisco.
Milwaukee Valve Co., Milwaukee, Wis.
New York Brass Foundry Co., New York.
Oil Conservation Engineering Co., The, Cleveland, Ohio.
Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
Roots - Connersville - Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.

Valves, Whistle

General Electric Co., Schenectady, N. Y.
Hennebohle, Frank, Chicago, Ill.
Jenkins Bros., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Brass Co., Mansfield, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Schultz, A. L., & Son, Chicago, Ill.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati.

Valves, Y

Crane Co., Chicago, Ill.
Edward Valve & Mfg. Co., The, East Chicago, Ind.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T., Valve Co, The, Cincinnati.

Variable Speed Transmissions

(See "Transmissions, Variable Speed")

Varnishes

Black Diamond Paint & Varnish Works, Inc., The, Cincinnati, Ohio.
Connors, Wm., Paint Mfg. Co., The, Troy, N. Y.
Goheen Corp. of New Jersey, Newark, N. J.
Horn, A. C., Co., Long Island City, N. Y.
Rinald, H., Co., W. Philadelphia, Pa.
Sherwin-Williams Co., Cleveland, Ohio.
Tnemec Co., Inc., Kansas City, Mo.
Truscon Steel Co., Youngstown, Ohio.
U. S. Gutta Percha Paint Co., Providence.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.

Vise and Anvil Combined

(See "Anvil and Vise Combined")

Vise, Anvil and Drill Combined

(See "Anvil, Vise and Drill Combined")

Vise Jaws

(See "Jaws, Vise")

Vise Mounts

(See "Mounts, Vise")

Vise—Square End Sawing for Tubing

Borden Co., The, Warren, Ohio.
Trimont Mfg. Co., Inc., Roxbury, Boston.

Vises, Bench

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Black & Decker Mfg. Co., The, Towson, Md.
Champion Blower and Forge Co., Lancaster, Pa.
Columbian Vise & Mfg. Co., The, Cleveland, Ohio.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
International Nulyp Tool Corp., Oswego, N. Y.
Luther Grinder & Tool Co., Milwaukee.
Millers Falls Co., Greenfield, Mass.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Morgan Vise Co., Chicago, Ill.
North Bros. Mfg. Co., Philadelphia, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Sargent & Co., New Haven, Conn.
Stanley Rule & Level Plant, The, New Britain, Conn.
Wallace, J. D., & Co., Chicago, Ill.
Western Hdwe. Mfg. Co., Milwaukee, Wis.
Wright Manufacturing Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Blacksmiths' and Solid Box

(See "Vises, Solid Box")

Vises, Carpenters'

(See "Vises, Woodworkers' ")

Vises, Clamp Base

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Goodell-Pratt Co., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Luther Grinder & Tool Co., Milwaukee.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Prentiss Vise Co., New York, N. Y.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Wright Manufacturing Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Combination Pipe

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Crane Co., Chicago, Ill.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hennebohle, Frank, Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
International Nulyp Tool Corp., Oswego, N. Y.
Morgan Vise Co., Chicago, Ill.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Wright Manufacturing Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

PARKER

"Combination Pipe"

VISES

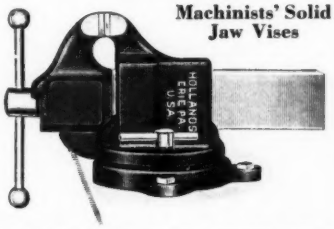
SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	Holds Pipe Up to	List
87	47	3½	3	2	$17.50
88	74	4½	5	3	24.00
288½	116	5	6	4	35.00
289½	185	6	9½	6	49.00

THE CHARLES PARKER CO.
Meriden, Conn.

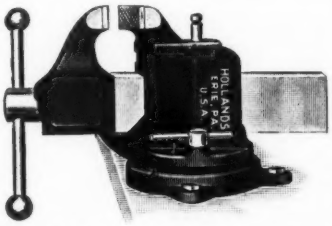
HOLLANDS VISES

Machinists' Solid Jaw Vises



The Hollands design provides maximum strength, rigidity and durability. Jaws are steel faced and machine corrugated. The swivel base is positive and locks at any point.

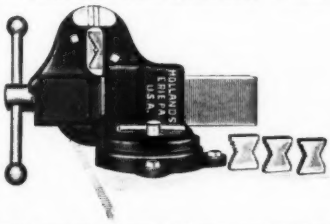
Swivel Base					Stationary Base		
No.	Wt. Lbs.	List Price Each	Width Jaw Inches	Jaw Open Inches	No.	Wt. Lbs.	List Price Each
22½	20	$12.00	2½	3½	12½	15	$ 9.00
23	30	13.00	3	4½	13	22	10.00
23½	37	15.00	3½	5	13½	30	11.25
24	54	17.00	4	6	14	44	12.75
24½	75	20.00	4½	7	14½	60	15.50
25	90	30.00	5	8	15	75	20.00
25½	120	38.00	5½	9	15½	105	30.00
26	170	52.00	6	10½	16	144	39.00
27	215	70.00	7	12	17	190	55.00
28	290	98.00	8	12½	18	255	75.00
29	340	115.00	9	13	19	260	90.00



Machinists' Swivel Jaw Vises — **Swivel Base**

No.	Width Jaw Inches	Jaw Open Inches	Wt. Lbs.	Price Each
42½	2½	3½	20	$16.00
43	3	3¾	36	17.50
43½	3½	5	46	20.00
44	4	5¾	62	24.00
44½	4½	7¼	76	28.00
45	5	7¾	95	35.00
45½	5½	8¼	126	44.00
46	6	11¼	170	60.00
47	7	12½	220	75.00
48	8	13	300	105.00

Hollands Combination Vises



Pipe Jaws are tempered tool steel, are interchangeable and reversible.

Vise No.	Width Jaw, In.	Holds Pipe, In.	Weight Pounds	List Price Each
52	3½	⅛ to 2½	55	$16.00
53	4¼	⅛ to 3½	82	22.00
54	5	⅛ to 4½	120	32.00
56	6	⅛ to 6	186	45.00

HOLLANDS MFG. COMPANY
ERIE, PA. - U. S. A.

Vises—Drill Press, Miller, Planer and Shaper

Armstrong-Blum Mfg. Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Athol Machine & Foundry Co., Athol, Mass.
Brown Engineering Co., Reading, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Champion Blower and Forge Co., Lancaster, Pa.
Chicago Tool & Engineering Co., Chicago.
Goodell-Pratt Co., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Hollands Mfg. Co., Erie, Pa.
Kearney & Trecker Corp., Milwaukee, Wis.
Knight, W. B., Machinery Co., St. Louis.
Modern Machine Tool Co., Jackson, Mich. (Combination drill table and vise)
Mohn Machine Co., Reading, Pa.
Morgan Vise Co., Chicago, Ill.
National Machine Tool Co., Racine, Wis.
North Bros. Mfg. Co., Philadelphia, Pa.
Noyes, B. B., Co., Greenfield, Mass.
Oesterlein Machine Co., The, Cincinnati, O.
Sampson Tool Co., Inc., New York, N. Y.
Sheldon Machine Co., Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Yost Manufacturing Co., Meadville, Pa.

Vises, Filers'

American Chain Co., Inc., Bridgeport, Conn.
Atkins, E. C., and Co., Indianapolis, Ind.
Columbian Vise & Mfg. Co., The, Cleveland.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Hollands Mfg. Co., Erie, Pa.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.

Vises, Hand and Pin

American Chain Co., Inc., Bridgeport, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Kilborn and Bishop Co., The, New Haven, Conn.
Lowell Wrench Co., Worcester, Mass.
Millers Falls Co., Greenfield, Mass.
Schollhorn, Wm., Co., The, New Haven, Conn.
Wright Manufacturing Co., York, Pa.

Vises, Machinists'

American Chain Co., Inc., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Brown Engineering Co., Reading, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Columbian Vise & Mfg. Co., The, Cleveland.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Goodell-Pratt Co., Greenfield, Mass.

(Continued on Page 256)

PARKER "FILERS" VISES

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
44	44	4	3	$16.50
‡278	52	4	5½	24.00

STATIONARY BASE

42	35	4	3	$13.50

‡ No. 278 is Top Swivel Jaw Model

THE CHARLES PARKER CO.
Meriden, Conn.

The

"Index to Advertisers"

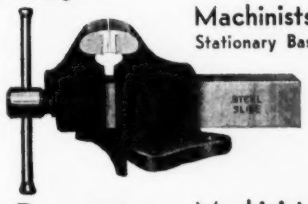
will be found on Pages 5, 6 and 7

SIMPLEX

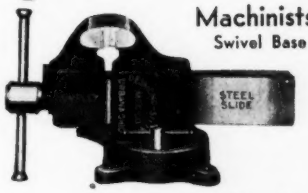
STEEL SLIDE VISES

The slide of front jaw, where practically all vise breakage occurs, is made of steel, giving maximum life, maximum strength, and eliminating all possibility of breakage.

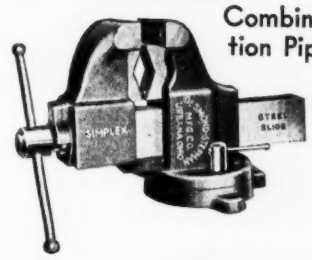
Machinists' Stationary Base



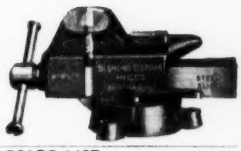
Machinists' Swivel Base



Combination Pipe



Simplex Utility
For Home & Garage



PRICE LIST

Vise No.	Width of Jaw	Jaws Open	Weight, Pounds	List Price
MACHINISTS' STATIONARY BASE				
31 P	3¼"	4½	21	$10.00
33 P	3¾"	5	30	11.25
41 P	4¼"	6	42	12.75
43 P	4¾"	7	60	15.50
51 P	5¼"	8	83	20.00
61 P	6¼"	10	122	39.00
71 P	7¼"	12	175	55.00
81 P	8¼"	13	231	75.00
MACHINISTS' SWIVEL BASE				
31 S	3¼"	4½	25	$13.00
33 S	3¾"	5	36	15.00
41 S	4¼"	6	50	17.00
43 S	4¾"	7	72	20.00
51 S	6¼"	8	100	30.00
61 S	6¼"	10	146	52.00
71 S	7¼"	12	210	70.00
SIMPLEX UTILITY				
*30	3"	3¼"	11	$2.20
100	3"	3¼"	12	3.00
350	3½"	4½"	19	4.50
400	4"	5"	25	7.50
500	5"	5"	29	8.50

(*No. 30 does not have swivel base)

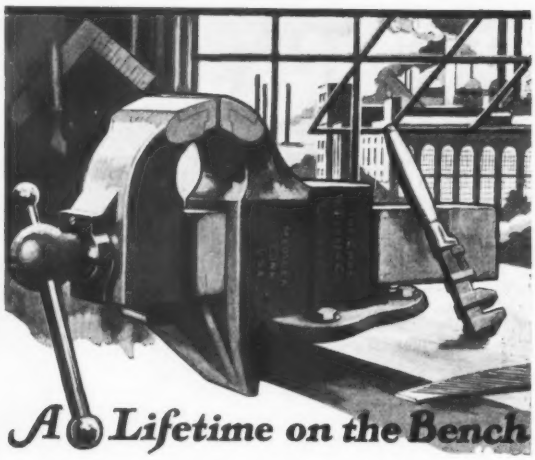
COMBINATION PIPE VISE

No.	Jaw	Weight Lbs.	Holds Pipe	Price	Without Pipe Jaws
CP 33	3¾	46	⅛ to 2½	$16.00	$13.60
CP 43	4¾	80	⅛ to 4	22.00	18.60

DESMOND-STEPHAN MFG. CO.
URBANA, OHIO

PARKER VISES

1832 1935



STYLES

Machinists,

Swivel Jaw,

Heavy Duty,

Double Swivel,

Service Station

QUALITY PROVEN—103 YEARS OF SERVICE

"SUPERIOR" MACHINISTS STATIONARY BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
29X	33	3¼	4	$11.50
39X	52	3¾	6	13.00
49X	72	4¼	7	17.00
59X	90	4¾	8	22.00
69X	129	5½	9	33.00
79X	159	6¼	9½	45.00
79½X	194	7	10½	55.00
60X	297	8	13¾	95.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
229X	39	3¼	4	$15.00
239X	61	3¾	6	17.00
249X	85	4¼	7	21.00
259X	103	4¾	8	27.50
269X	151	5½	9	42.00
279X	187	6¼	9½	60.00
279½X	228	7	10½	70.00
260X	351	8	13¾	105.00

"TOP SWIVEL JAW" SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
270	33	3	3½	$17.50
271	51	3½	5	20.00
271½	52	4	5	24.00
272	71	4½	6	28.00
273	85	5	7	35.00
274	123	5½	9	44.00
275	174	6	9½	60.00
240	220	7	11	75.00

"DOUBLE SWIVEL" SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
429	53	3½	3½	$27.00
439	67	4	6	32.00
449	87	4½	7½	39.00

"ECLIPSE" MACHINISTS STATIONARY BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
101	15	2½	3½	$ 9.00
102	23	3	4½	10.00
103	35	3½	5½	11.25
104	46	4	6½	12.75
105	63	4½	7	15.50
106	85	5	8	20.00
106½	110	5½	9	30.00
107	132	6	10½	39.00
108	245	8	13¾	75.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
201	17	2½	3½	$12.00
202	26	3	4½	13.00
203	42	3½	5½	15.00
204	59	4	6½	17.00
205	76	4½	7	20.00
206	104	5	8	30.00
206½	130	5½	9	38.00
207	157	6	10½	52.00
208	298	8	13¾	98.00

HEAVY DUTY AND SERVICE STATION

Have extra weight and heavy anvil attached.

STATIONARY BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
134	76	4	5½	$17.50
135	102	5	6	24.00

SWIVEL BASE

No.	Weight Lbs.	Jaw In.	Vise Opens	List
234	89	4	5½	$21.50
235	112	5	6	32.00

THE CHARLES PARKER COMPANY **MERIDEN, CONNECTICUT**

THEY GRIP LIKE A GRIZZLY

Vises, Machinists'

(Contiued from Page 255)

Hollands Mfg. Co., Erie, Pa.
Illinois Iron & Bolt Co., Carpentersville, Ill.
International Nulyp Tool Corp., Oswego, N. Y.
Millers Falls Co., Greenfield, Mass.
Morgan Vise Co., Chicago, Ill.
North Bros Mfg. Co., Philadelphia, Pa.
Oesterlein Machine Co., The, Cincinnati, O.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Sampson Tool Co., Inc., New York, N. Y.
Wright Manufacturing Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Patternmakers'

(See "Vises, Woodworkers' ")

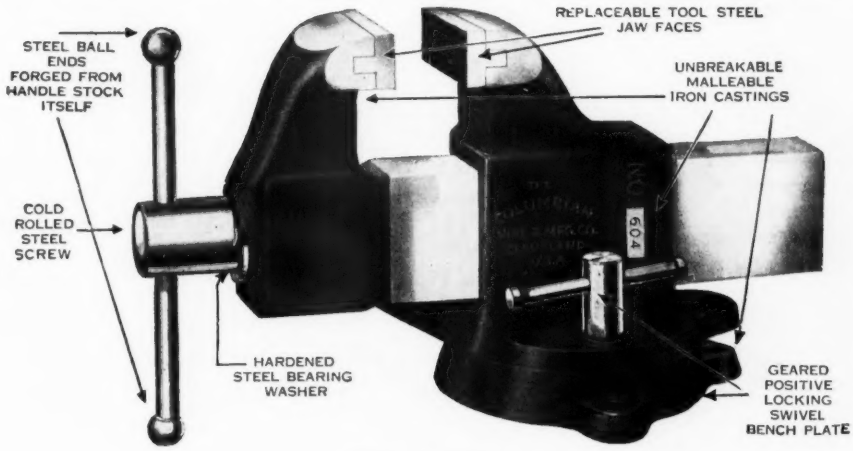
For "Trade Names" Which Differ from The Company Name See the "Trade Name Index"

"Trade Names" Are Not Shown in the "Trade Name Index" Where They Are the Same as the Company's Name or Where the Company's Name Constitutes the First Part of the Trade Name.

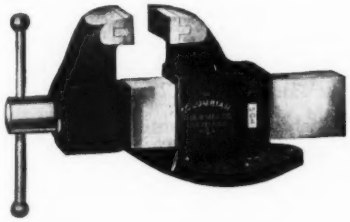
If you do not find a trade name in the "Trade Name Index," look for the company's name under the product heading

COLUMBIAN

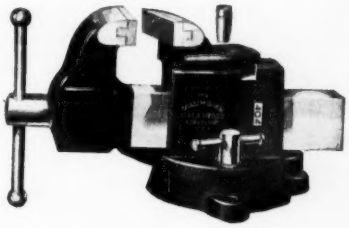
MALLEABLE IRON MACHINISTS' VISES ARE UNBREAKABLE



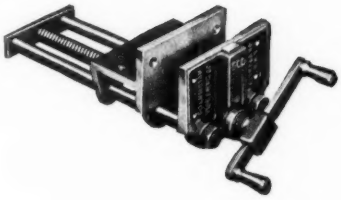
A few items of our **COMPLETE VISE LINE** are shown below.



MACHINISTS' and COMBINATION PIPE VISES
All Types . . All Sizes

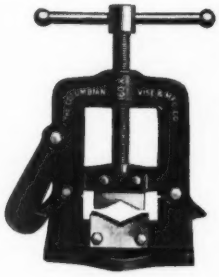


WOODWORKERS' VISES
Continuous Screw and Rapid Acting



HINGED PIPE VISES
Malleable Iron—Tool Steel Jaws

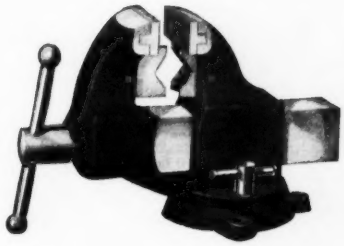
DROP FORGED STEEL "C" CLAMPS
Deep Throat—Cold Rolled Steel Screw—Large Pad and Button



THE COLUMBIAN SALES POLICY

is a **Distributors' Protection Policy**—
Resale Price Protection—as well as a
Service Guarantee.

Simplify your Vise Purchasing by combining shipments from the Outstanding Vise Source.



Write for Catalog and Complete Information

THE COLUMBIAN VISE & MFG. COMPANY

9021 Bessemer Avenue CLEVELAND, OHIO

UMI

HOLLANDS
Hinged Pipe Vises

No.	Pipe Capacity Inches	Weight Pounds	List Price Each
398	1/8 to 1 1/4	4	$2.50
399	1/8 to 1 1/2	5	3.60
401	1/8 to 2	9	4.25
402	1/8 to 2 1/2	12	5.00
403	1/8 to 3 1/2	18	7.50
404	1/8 to 4 1/2	30	11.00
406	1/8 to 6	55	23.50
408	1 to 8	80	47.50
412	1 1/2 to 12	160	70.00

Hollands Clamp Vises

Same construction as Hollands Malleable hinged pipe vises shown above except that base is equipped with a clamp, for clamping vise to bench or post.

Vise No.	Pipe Capacity Inches	Weight Pounds	List Price Each
298-C	1/8 to 1 1/4	5	$3.50
399-C	1/8 to 1 1/2	8	4.50
400-C	1/8 to 2	11	5.00
402-C	1/8 to 2 1/2	15	6.50

Hollands Adjustable Stocks and Dies

Interchangeable with all standard makes. Each complete set packed in a strong fibre box.

Set No.	Pipe Capacity Inches	List Price Set	Stock Only Each	Extra Dies Each	Extra Guide Each
1AH1	1/8 to 1/2	$ 9.00	$3.25	$1.60	$0.30
2AH1	1/4 to 1	12.00	4.00	2.00	.40
2AH2	1/4 to 1	14.00	4.00	2.00	.40
2AH3	1/4 to 3/4	12.00	4.00	2.00	.40
2AH4	3/8 to 1	10.00	4.00	2.00	.40
2AH5	1/2 to 1	8.00	4.00	2.00	.40
2AH6	1/2 to 3/4	6.50	4.00	2.00	.40
2 1/2AH1	1/2 to 1 1/4	14.00	5.25	2.50	.60
2 1/2AH2	3/8 to 1 1/4	16.50	5.25	2.50	.60
2 1/2AH3	1/4 to 1 1/4	19.00	5.25	2.50	.60
2 1/2AH4	1/8 to 1 1/4	21.50	5.25	2.50	.60
2 1/2AH5	1/2 to 1 1/2	16.50	5.25	2.50	.60
3AH1	1 1/4 to 2	18.00	7.00	4.50	.75
3AH2	1 to 2	21.00	7.00	4.50	.75
3AH3	3/4 to 2	24.00	7.00	4.50	.75
3AH4	1/2 to 2	27.00	7.00	4.50	.75

Malleable Reversible Ratchet Stock

For Solid Dies No. 1 Size

A light convenient tool for close work. Can be operated in a space of 3 1/2 inches wide.

Stock No.	Pipe Capacity Inches	List Price Set	Stock Only Each	Extra Dies Each	Extra Guides Each
1R	1/4 to 1	$12.00	$5.00	$1.60	$0.40
1RA	1/8 to 1	13.50	5.00	1.60	.40
1RB	1/4 to 3/4	10.50	5.00	1.60	.40
1RC	1/2 to 1	9.00	5.00	1.60	.40
1RD	1/2 to 3/4	7.50	5.00	1.60	.40

HOLLANDS MFG. COMPANY
ERIE, PA. U. S. A.

Vises, Pipe

American Chain Co., Inc., Bridgeport, Conn.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Crane Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass.
Grinnell Co., Inc., Providence, R. I.
Hollands Mfg. Co., Erie, Pa.
International Nulyp Tool Corp., Oswego, N. Y.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Rock Island Mfg. Co., Rock Island, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pipe, Chain

American Pipe Tool Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Manufacturing Co., Bridgeport, Conn.
Hollands Mfg. Co., Erie, Pa.
Nye Tool & Machine Works, The, Chicago.
Ridge Tool Co., The, Elyria, Ohio.
Toledo Pipe Threading Machine Co., The, Toledo, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pipe, for Nickel and Brass Pipe

Armstrong Mfg. Co., Bridgeport, Conn.
Nye Tool & Machine Works, The, Chicago.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Warnock Manufacturing Co., Worcester, Mass.

Vises, Pipe, Tool Kit and Post

Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Mfg. Co., Bridgeport, Conn.
Hollands Mfg. Co., Erie, Pa.
International Nulyp Tool Corp., Oswego, N. Y.
Nye Tool & Machine Works, The, Chicago.
Oster-Williams, Cleveland, Ohio.
Reed Manufacturing Co., Erie, Pa.
Ridge Tool Co., The, Elyria, Ohio.
Williams, J. H., & Co., New York, N. Y.
Wright Manufacturing Co., York, Pa.
Yost Manufacturing Co., Meadville, Pa.

Vises, Pneumatic

Hannifin Mfg. Co., Chicago, Ill.

Vises, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Cincinati Tool Co., The, Cincinnati, Ohio.
Covel-Hanchett Co., Big Rapids, Mich.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Rock Island Mfg. Co., Rock Island, Ill.
Sargent & Co., New Haven, Conn.

Vises, Solid Box

American Chain Co., Inc., Bridgeport, Conn.
Columbian Vise & Mfg. Co., The, Cleveland.

Vises, Swivel

(See "Vises, Bench" or "Vises, Machinists' ")

Vises, Toolmakers'

(See "Vises, Machinists' ")

Vises, Welders'

International Nulyp Tool Corp., Oswego, N. Y.

Vises, Woodworkers'

American Chain Co., Inc., Bridgeport, Conn.
Athol Machine & Foundry Co., Athol, Mass.
Columbian Vise & Mfg. Co., The, Cleveland.
Desmond-Stephan Mfg. Co., Urbana, Ohio.
Emmert Mfg. Co., Waynesboro, Pa.
Greenlee Bros. & Co., Rockford, Ill.
Hollands Mfg. Co., Erie, Pa.

ARMSTRONG BROS.

PIPE VISES

Chain Vises (patented) have 1-piece drop forged jaws and 5 other improvements. Hinged Vises with drop forged steel hooks, and jaws of tool steel milled, hardened and tempered.

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"The Tool Holder People"
332 N. Francisco Ave., Chicago.

Write for Catalog.

Heavy Duty Vises
Open Side Vises
Pipe Vise Saddle that attaches any iron or wood post

Illinois Iron & Bolt Co., Carpentersville, Ill.
Millers Falls Co., Greenfield, Mass.
Morgan Vise Co., Chicago, Ill.
Parker, Charles, Co., The, Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Toles, W. C., Co., Woodstock, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Yost Manufacturing Co., Meadville, Pa.

Voltmeters

Bristol Co., The, Waterbury, Conn.
General Electric Co., Schenectady, N. Y.

Vulcanizers

Heintz, James C., & Co., Cleveland, Ohio.

Vulcanizers, Portable, for Rubber Belts

Heintz, James C., & Co., Cleveland, Ohio.

Washers—Aluminum, Brass, Copper, Lead, Tin and Zinc

Akron Metallic Gasket Co., Akron, Ohio.
Atlas Tack Corp., Fairhaven, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Consolidated Metals Corp., Detroit, Mich.
Economy Manufacturing Co., Philadelphia.
Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Harper, H. M., Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Humphrey, H. W., Unionville, Conn. (Aluminum, brass, copper and tin)
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland, Ohio.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Metallo Gasket Co., New Brunswick, N. J.
National Motor Bearing Co., Inc., Oakland, Calif. (Brass)
Pheoll Mfg. Co., Chicago, Ill.

PARKER
"WOODWORKERS" VISES

No.	Weight Lbs.	Jaw In.	Vise Opens	Depth Face In.	List
SWIVEL BASE					
246	77	4 1/2	7	2 1/4	$22.50
‡276	53	4	7	2 1/4	25.00
STATIONARY BASE					
146	64	4 1/2	7	2 1/4	$17.50

‡ No. 276 is Top Swivel Jaw Model

THE CHARLES PARKER CO.
Meriden, Conn.

Special Washers in all Metals, Leather, Fibre, Asbestos and Graphite. Deep Drawings. Special Stampings.

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215 W. Grand Ave. Chicago, Ill.

Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Richardson, Edro, Brass Co., The, Baltimore, Md.
Toledo Washer & Stamping Co., Toledo, O.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Asbestos

Akron Metallic Gasket Co., Akron, Ohio.
Auburn Leather Goods Co., Inc., Hartford, Conn.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Excel Asbestos Mfg. Co., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Janos Asbestos Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Quadriga Mfg. Co., The, Chicago, Ill.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Thermoid Rubber Co., Trenton, N. J.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.

Washers, Automobile and Vehicle

Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Asch & Co., Inc., New York, N. Y.
Binks Manufacturing Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Champion Pneumatic Machinery Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Curtis Pneumatic Machinery Co., St. Louis.
Deming Co., The, Salem, Ohio.
Felt Products Mfg. Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Imperial Brass Manufacturing Co., Chicago, Ill.
Master Products Co., The, Cleveland, Ohio.
Rhopac Products Corp., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Walworth Co., New York, N. Y.
Western Packing & Supply Co., Chicago.

Washers, Bibb

Auburn Leather Goods Co., Inc., Hartford, Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Continental-Diamond Fibre Co., Newark, Del.
Cook, H. N., Belting Co., San Francisco.
Crane Co., Chicago, Ill.
Detroit Stamping Co., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Holland Rubber Co., New York, N. Y.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
New England Screw Co., Boston, Mass.
Page Belting Co., Concord, N. H.
Prier Brass Mfg. Co., Kansas City, Mo.
Quadriga Mfg. Co., The, Chicago, Ill.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Washers, Cast Iron

Bethlehem Steel Co., Bethlehem, Pa.
Crane Co., Chicago, Ill.
Filer & Stowell Co., The, Milwaukee, Wis.
Johnston & Jennings Co., The, Cleveland.
Nute, McGehee, Geary Co., Inc., The, Chambersburg, Pa.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wrought Washer Mfg. Co., Milwaukee.

Washers—Cork, Paper and Pasteboard

Akron Metallic Gasket Co., Akron, Ohio.
Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Auburn Leather Goods Co., Inc., Hartford, Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Davis, John C., Rochester, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Holland Rubber Co., New York, N. Y.
Humphrey, H. W., Unionville, Conn.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Quadriga Mfg. Co., The, Chicago, Ill.
Rockwood Mfg. Co., The, Indianapolis, Ind.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Felt and Fabric

Akron Metallic Gasket Co., Akron, Ohio.
Auburn Leather Goods Co., Inc., Hartford, Conn.
Booth Felt Co., Inc., Brooklyn, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Gross Rubber Co., Sharon, Pa.
MacWatty Belting Co., Providence, R. I.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Quadriga Mfg. Co., The, Chicago, Ill.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Fibre

Akron Metallic Gasket Co., Akron, Ohio.
Auburn Leather Goods Co., Inc., Hartford, Conn.
Bastian-Blessing Co., Chicago, Ill.
Continental-Diamond Fibre Co., Newark, Del.
Detroit Stamping Co., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Gross Rubber Co., Sharon, Pa.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Humphrey, H. W., Unionville, Conn.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Massachusetts Machine Shop, Inc., Boston.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Quadriga Mfg. Co., The, Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Galvanized

Clark Bros. Bolt Co., Milldale, Conn.
Crane Co., Chicago, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Humphrey, H. W., Unionville, Conn.
Littleford Bros., Cincinnati, Ohio.

Massachusetts Machine Shop, Inc., Boston, Mass.
Master Products Co., The, Cleveland, Ohio.
Metallo Gasket Co., New Brunswick, N. J.
Quadriga Mfg. Co., The, Chicago, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Scott Valve Manufacturing Co., Detroit.
Sheffield Steel Corp., Kansas City, Mo.
Toledo Washer & Stamping Co., Toledo, O.
U. S. Indestructible Gasket Co., Brooklyn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers and Gaskets, Gauge Glass

Bache, Semon, & Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Consolidated Brass Co., Detroit, Mich.
Crane Co., Chicago, Ill.
Dareoid Co., Inc., The, New York, N. Y.
Detroit Lubricator Co., Detroit, Mich.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Edna Brass Mfg. Co., The, Cincinnati, O.
Elkhart Rubber Works, Elkhart, Ind.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodrich, B. F., Co., The, Akron, Ohio.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jenkins Bros., New York, N. Y.
Keystone Brass & Rubber Co., Philadelphia, Pa.
Klingerit, Inc., New York, N. Y.
Latta, J. S., Packing & Rubber Co., Philadelphia, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Morse Grate Bar Co., Inc., Providence, R. I.
New York Belting & Packing Co., Passaic, N. J.
Sargent Co., Chicago, Ill.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wright-Austin Co., Detroit, Mich.

Washers, Hose

Auburn Leather Goods Co., Inc., Hartford, Conn.
Chicago Rawhide Mfg. Co., The, Chicago.
Binks Manufacturing Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Manufacturing Co., The, Norwood, Cincinnati, Ohio.
Crane Co., Chicago, Ill.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., The, Akron, Ohio.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Elkhart Rubber Works, Elkhart, Ind.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Hewitt Rubber Corp., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Keystone Brass & Rubber Co., Philadelphia, Pa.

Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Standard Packing & Rubber Co., New York.
Thermoid Rubber Co., Trenton, N. J.
Victor Mfg. & Gasket Co., Chicago, Ill.
Whitehead Bros. Rubber Co., Trenton, N. J.

Washers, Leather and Rawhide

Auburn Leather Goods Co., Inc., Hartford, Conn.
Baldwin Belting & Leather Co., Inc., New York, N. Y.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Cook, H. N., Belting Co., San Francisco.
Couse & Bolten, Inc., Newark, N. J.
Economy Manufacturing Co., Philadelphia.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Gross Rubber Co., Sharon, Pa.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Himmelein & Bailey, Inc., Camden, N. J.
Hoffeld, R., & Co., Buffalo, N. Y.
Kupferle, John C., Foundry Co., St. Louis.
Lunkenheimer Co., The, Cincinnati, Ohio.
Mabbs Hydraulic Packing Co., Chicago, Ill.
MacWatty Belting Co., Providence, R. I.
Marsh, Chas. W., Co., Muskegon, Mich.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Michigan Leather Packing Co., Detroit.
Moloney Belting Co., Chicago, Ill.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Stevens-Walden, Inc., Worcester, Mass.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Rawhide & Belting Co., Milwaukee, Wis.
Whiting Leather & Belting Co., Long Island City, N. Y.
Williams, I. B., & Sons, Dover, N. H.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Lock

Beall Tool Co., East Alton, Ill.
Eaton Manufacturing Co., Reliance Spring Washer Division, Massillon, Ohio.
Everett Co., The, Boston, Mass.
Heiz & Heiz, Inc., Brooklyn, N. Y.
National Motor Bearing Co., Inc., Oakland, Calif.
Positive Lock Washer Co., The, Newark, N. J.
Rawlplug Co., Inc., New York, N. Y.
Stevens, Walden, Inc., Worcester, Mass. (Auto)
Washburn Co., The, Worcester, Mass.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Malleable Iron

Illinois Malleable Iron Co., Chicago, Ill.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Link-Belt Co., Chicago, Ill.

LOCK WASHERS
SPRING WASHERS
NUT LOCKS

Kantlink - Nonlink Positive
Positive Type "D"
in
CARBON STEEL
STAINLESS STEEL
NON-FERROUS METALS

THE POSITIVE LOCK WASHER CO.
NEWARK NEW JERSEY
Lock Washers—For Over Forty Years

Marion Malleable Iron Works, Marion, Ind.
Maris Brothers, Inc., Philadelphia, Pa.
Master Products Co., The, Cleveland.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Chicago, Ill.
Sheffield Steel Corp., Kansas City, Mo.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Mine Car Axle

Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Master Products Co., The, Cleveland, Ohio.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Nail Head

Chicago Rawhide Mfg. Co., The, Chicago.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Ryerson, Joseph T., & Son, Inc., Chicago.
U. S. Indestructible Gasket Co., Brooklyn.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Oil Cup

Akron Metallic Gasket Co., Akron, Ohio.
Chicago Rawhide Mfg. Co., The, Chicago.
Consolidated Brass Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, Ohio.
Marsh, Chas. W. Co., Muskegon, Mich.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Schieren, Chas. A., Co., The, New York.
Western Packing & Supply Co., Chicago.

Washers, Paper and Pasteboard

(See "Washers—Cork, Paper and Pasteboard")

Washers, Pump

Auburn Leather Goods Co., Inc., Hartford, Conn.
Chicago Rawhide Mfg. Co., The, Chicago.
Davis, John C., Rochester, N. Y.
Elkhart Rubber Works, Elkhart, Ind.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Graton & Knight Co., Worcester, Mass.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Home Rubber Co., Trenton, N. J.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Michigan Leather Packing Co., Detroit.
Myers, F. E., & Bro. Co., The, Ashland, O.
Page Belting Co., Concord, N. H.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Schieren, Chas. A., Co., New York, N. Y.
Stevens, Walden, Inc., Worcester, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.
Williams, I. B., & Sons, Dover, N. H.

Washers, Roofing

(See "Washers—Aluminum, Brass, Copper, Lead, Tin and Zinc")

Washers, Rubber

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cincinnati Rubber Mfg. Co., The, Norwood, Cincinnati, Ohio.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
Felt Products Mfg. Co., Chicago, Ill.
Garlock Packing Co., Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Goodrich, B. F., Co., The, Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., The, Akron, Ohio.
Rubber Corp., Buffalo, N. Y.
Hoffeld, R., & Co., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Mechanical Rubber Co., Passaic, N. J.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., Passaic, N. J.
Pioneer Rubber Mills, San Francisco, Calif.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Philadelphia.
Republic Rubber Co., The, Youngstown, O.
Rhopac Products Corp., Chicago, Ill.
Standard Shop Equipment Co., Philadelphia, Pa.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.

Washers, Steel, Flat

Bay State Stamping Co., Worcester, Mass.
Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Detroit Stamping Co., Detroit, Mich.
Goetze Gasket & Packing Co., Inc., New Brunswick, N. J.
Hitner's, Henry A., Sons Co., Philadelphia.
Humphrey, H. W., Unionville, Conn.
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland.
Neely Nut & Bolt Co., Pittsburgh.
Quadriga Mfg. Co., The, Chicago, Ill.
Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
Standard Shop Equipment Co., Philadelphia, Pa.
Stanley Works, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
U. S. Indestructible Gasket Co., Brooklyn.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Washers, Street

Field, R. B., & Co., Worcester, Mass.
Hays Manufacturing Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.

Washers, Valve, Hydrant

Auburn Leather Goods Co., Hartford, Conn.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Couse & Bolten, Inc., Newark, N. J.
Elkhart Rubber Works, Elkhart, Ind.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Felt Products Mfg. Co., Chicago, Ill.
Field, R. B., & Co., Worcester, Mass.
Garlock Packing Co., The, Palmyra, N. Y.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Kupferle, John C., Foundry Co., St. Louis.
Manhattan Rubber Mfg. Co. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Marsh, Chas. W., Co., Muskegon, Mich.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Page Belting Co., Concord, N. H.
Schieren, Chas. A., Co., New York, N. Y.
Standard Packing & Rubber Co., New York.
Victor Mfg. & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago.
Whitehead Bros. Rubber Co., Trenton, N. J.

Washers, Wrought Iron

Bethlehem Steel Co., Bethlehem, Pa.
Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
Haskell, Wm. H., Manufacturing Co., Pawtucket, R. I.
Heiz & Heiz, Inc., Brooklyn, N. Y.
Massachusetts Machine Shop, Inc., Boston.
Master Products Co., The, Cleveland.
Milton Manufacturing Co., The, Milton, Pa.
Republic Steel Corp., Youngstown, Ohio.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
U. S. Indestructible Gasket Co., Brooklyn.
Victor Mfg. & Gasket Co., Chicago, Ill.
Wrought Washer Mfg. Co., Milwaukee.

Waste, Cotton and Wool

American Sanitary Rag Co., Chicago, Ill.
Buffalo Batt & Felt Corp., Depew, N. Y.
Colorado Sanitary Wiping Cloth Co., Denver, Colo.
Cook & Riley, Inc., Chicago, Ill.
Corr, Patrick, & Sons, Inc., Philadelphia.
GeGneral Fibre Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Lillie, Dexter P., Co., New Bedford, Mass.
Massasoit Mfg. Co., Fall River, Mass.
Mont, A. W., & Co., Inc., Plainville, Conn.
Rauschenberger, John, Co., Milwaukee, Wis.
Riverside Mills, Inc., Augusta, Ga.
Robinson, D., & Sons, Detroit, Mich.
Springfield Waste Co., Springfield, Mass.
Star Sanitary Rag Co., Chicago, Ill.
Sweetland Waste Co., Inc., Canton, Mass. (Cotton)
Wiping Materials, Inc., St. Louis, Mo.
Wisconsin Waste & Wiper Co., Milwaukee.

Water Columns

(See "Columns, Water")

Water Gun, Lawn Sprinkling

Penberthy Injector Co., Detroit, Mich.

UMI

Water Lifts
(See "Pumps")

Water Supply Systems
(See "Systems, Water Supply")

Water Treatment for Boilers
(See "Treatment, Water, for Boilers")

Wattmeters, Recording
Bristol Co., The, Waterbury, Conn.
General Electric Co., Schenectady, N. Y.

Wax, Belt
Atkins, E. C., and Co., Indianapolis, Ind.
Burrell Belting Co., Chicago, Ill.
Himmelein & Bailey, Inc., Camden, N. J.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich.

Ways, Balancing
(See "Machines or Ways, Balancing")

Webbing, Cotton
Burrell Belting Co., Chicago, Ill.
Hettrick Manufacturing Co., The, Toledo, Ohio.
Home Rubber Co., Trenton, N. J.
Miley, L. J., Co., Inc., Chicago, Ill.

Wedges for Axe, Hammer, Hatchet, Pick and Sledge Handles
Leetonia Tool Co., The, Leetonia, Ohio.
National Lead Co., New York, N. Y.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.

Wedges, Coal
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.

Wedges, Foundry
Sterling Wheelbarrow Co., Milwaukee, Wis.

Wedges, Frost
Klein-Logan Co., The, Pittsburgh, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

Wedges, Iron and Steel
Bonney Forge & Tool Works, Allentown, Pa.
Evansville Tool Works, Inc., Evansville, Ind.
Klein-Logan Co., The, Pittsburgh, Pa.
Market Forge Co., Everett, Mass.
Standard Shop Equipment Co., Philadelphia, Pa.
Stanley Rule & Level Plant, The, New Britain, Conn.
Vulcan Tool Mfg. Co., Quincy, Mass.

Wedges, Saw
Evansville Tool Works, Inc., Evansville, Ind.
Klein-Logan Co., The, Pittsburgh, Pa.
Leach Co., Oshkosh, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.

Wedges, Tool Post
(See "Rings and Wedges, Tool Post")

Wedges, Wooden
Menasha Wood Split Pulley Co., Menasha, Wis.
Rowe, Henry, Mfg. Co., Newago, Mich.

Weighers, Water
Merrick Scale Mfg. Co., Passaic, N. J.
Streeter-Amet Co., Chicago, Ill.

Welding Apparatus, Electric
Frasse, Peter A., & Co., Inc., New York, N. Y.
General Electric Co., Schenectady, N. Y.
Lincoln Electric Co., The, Cleveland, Ohio.
Pittsburgh Thermoline Co., Pittsburgh, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sterling Products Co., Detroit, Mich.
Syntron Co., Pittsburgh, Pa.
Weldit Acetylene Co., Detroit, Mich.

Welding and Cutting Apparatus, Oxygen-Acetylene
Air Reduction Sales Co., New York, N. Y.
Bastian-Blessing Co., Chicago, Ill.
Dockson, C. H., Co., Detroit, Mich.
Harris Calorific Co., The, Cleveland, Ohio.

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Linde Air Products, Inc., The, New York.
Macleod Co., The, Cincinnati, Ohio.
Milburn, Alexander, Co., The, Baltimore, Md.
Modern Engineering Co., St. Louis, Mo.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Pittsburgh Thermoline Co, Pittsburgh, Pa.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Victor Welding Equipment Co., Division of Victor Equipment Co., San Francisco.
Weldit Acetylene Co., Detroit, Mich.

Wheelbarrows
(See "Barrows")

Wheels, Barrow
Electric Wheel Co., Quincy, Ill.
Empire Manufacturing Co., Quincy, Ill.
Fairbanks Co., The, New York, N. Y.
General Wheelbarrow Co., The, Cleveland.
Jackson Manufacturing Co., Harrisburg, Pa.
Mountville Mfg. Co., Mountville, Pa.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Toledo Wheelbarrow Co., The, Toledo, O.

Wheels, Buffing and Polishing
Atkins, E. C., and Co., Indianapolis, Ind.
Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Booth Felt Co., Inc., Brooklyn, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago.
Cleveland Container Co., The, Cleveland, O.
Cook, H. N., Belting Co., San Francisco.
Dallett Co., The, Philadelphia, Pa.
Divine Brothers Co., Utica, N. Y.
Excelsior Tool and Machine Co., East St. Louis, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
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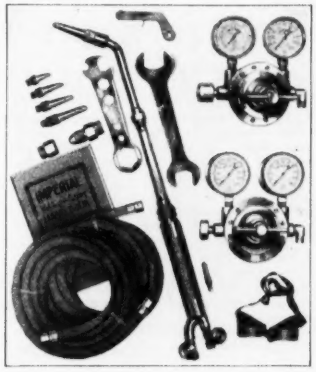
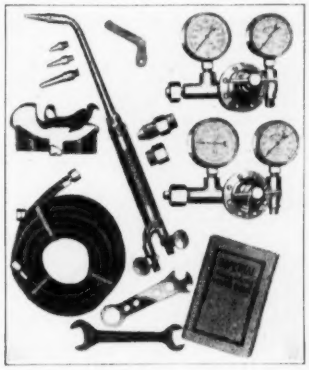


No. 111 Outfit, designed for continuous service and all types of welding. Outfit consists of torch, 5 welding tips and 2 mixers, oxygen regulator with gauges, acetylene regulator with gauges, cylinder or tank union, hose connections, oxygen hose, acetylene hose, goggles, lighter, wrenches and welding hand book. Price, $69.50. Carrying case, $6.00 extra.



No. 117 Outfit, a necessity in every shop and garage that offers complete welding service. Each regulator has two gauges, which enable the operator to know both cylinder and working pressure of the gases. Outfit consists of torch, regulators, tank or cylinder adapters, oxygen hose, acetylene hose, wrenches, goggles and welding hand book. Price, $54.50. Carrying case, $4.50 extra.

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Milwaukee Brush Manufacturing Co., The, Milwaukee, Wis.
Ohio Buff & Mfg. Co., The, Cincinnati, Ohio.
Osborn Manufacturing Co., Cleveland, O.
Page Belting Co., Concord, N. H.
Robinson, D., & Sons, Detroit, Mich.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Schaefer Brush Mfg. Co., Milwaukee, Wis.
Schieren, Chas. A. Co., New York, N. Y.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Wappat, Inc., Pittsburgh, Pa.

Wheels, Bull

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Lane Mfg. Co., Montpelier, Vt.
Memphis Machine Works, Memphis, Tenn.

Wheels, Car, Mine

Bethlehem Steel Co., Bethlehem, Pa.
Electric Wheel Co., Quincy, Ill.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Link-Belt Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Wheels, Fly

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Diamond Iron Works, Inc., Minneapolis.
Dodge Manufacturing Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Gears and Forgings, Inc., Cleveland, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Illinois Gear & Machine Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
Medart Co., St. Louis, Mo.
Murray Iron Works Co., Burlington, Iowa.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pyott Foundry & Machine Co., Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T B., Sons Co., Chambersburg, Pa.

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Goodell-Pratt Co., Greenfield, Mass.
Lonergan J. E., Co., Philadelphia, Pa.
Millers Falls Co., Greenfield, Mass.

Wheels, Grinding

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Bay State Emery Wheel Co., Not Inc., Worcester, Mass.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Cleveland Container Co, The, Cleveland.
Covel-Hanchett Co., Big Rapids, Mich.
Dallett Co., The, Philadelphia, Pa.
Goodrich Grinding Wheel Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Independent Pneumatic Tool Co., Chicago.
Luther Grinder & Tool Co., Milwaukee.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., Passaic, N. J.
Norton Co., Worcester, Mass.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Peninsular Grinding Wheel Co., Detroit.
Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
Safety Griding Wheel & Machine Co., The, Springfield, Ohio.
Simonds Saw and Steel Co., Fitchburg, Mass.
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Stanley Electric Tool Co., Inc., The, New Britain, Conn.
Sterling Grinding Wheel Co., The, Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
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Wappat, Inc., Pittsburgh, Pa.
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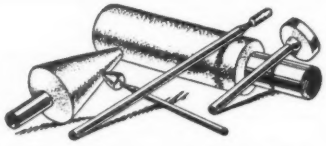

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Trimont Mfg. Co., Roxbury, Boston, Mass.

Wheels, Polishing

(See "Wheels, Buffing and Polishing")

Wheels, Rope

(See "Sheaves, Rope, Power Transmission")

Wheels, Sprocket

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Atlas Brass Foundry Co., The, Columbus, Ohio. (Bronze)
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Diamond Chain and Mfg. Co., Indianapolis.
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Earle Gear & Machine Co., The, Philadelphia, Pa.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Filer & Stowell Co., The, Milwaukee, Wis.
Foote Gear Works, Inc., Chicago, Ill.
Gears and Forgings, Inc., Cleveland, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Horsburgh & Scott Co., Cleveland, Ohio.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago, Ill.
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Moline Malleable Iron Co., St. Charles, Ill.
Morse Chain Co., Ithaca, N. Y.
Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York.
Philadelphia Gear Works, Philadelphia.

Pyott Foundry & Machine Co., Chicago, Ill.
Simonds Mfg. Co., The, Pittsburgh, Pa.
Smith Power Transmission Co., The, Cleveland, Ohio.
Smith, Winfield H., Inc., Springfield, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Webster Mfg Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

Wheels, Trolley

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Bethlehem Steel Co., Bethlehem, Pa.
Chain Belt Co., Milwaukee, Wis.
Cleveland Union Engineering Co., The, Cleveland, Ohio.
Conco Engineering Works, Mendota, Ill.
Harrington Co., The, Philadelphia, Pa.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Mathews Conveyor Co., Ellwood City, Pa.
Moccasin Bushing Co., Chattanooga, Tenn.
National Lead Co., New York, N. Y.
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Saginaw Stamping & Tool Co., Saginaw, Mich.
Yale & Towne Mfg. Co., The (Philadelphia Division), Philadelphia, Pa.

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Fairbanks Co., The, New York, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis.
Hamilton Caster & Mfg. Co., The, Hamilton, Ohio.
Lansing Co., Lansing, Mich.
Market Forge Co., Everett, Mass.
Menasha Wood Split Pulley Co., Menasha, Wis.
Metzgar Co., Inc., The, Grand Rapids, Mich. (Wood)
Nutting Truck Co., Faribault, Minn.
Payson Mfg. Co., The, Chicago, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., The, Albion, Mich.
Spaulding Fibre Co., Inc., Tonawanda, N. Y. (Fibre)
Towsley, John T., Mfg Co, The, Cincinnati, Ohio
Vulcan Wheels, Inc., Newark, N. J.
Wallace, J. D., & Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

Wheels, Valve, Fibre

Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Mechanical Leather Specialties Mfg. Co., Boston, Mass.
Spaulding Fibre Co., Inc., Tonawanda, N. Y.

Wheels, Valve, Metal

Bastian-Blessing Co., Chicago, Ill.
Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Milwaukee Valve Co, Milwaukee, Wis.
Newbury Manufacturing Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Walworth Co., New York, N. Y.
Williams, D. T, Valve Co, The, Cincinnati.

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Foote Gear Works, Inc., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N.Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Newbury Manufacturing Co., Monroe, N. Y.

Wheels, Valve, Wire

Jenkins Bros, New York, N. Y.
Streich, A., & Bro. Co., Oshkosh, Wis.

Wheels, Valve, Wood

Crane Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, Ohio.
Market Forge Co., Everett, Mass.
Williams, D. T., Valve Co., The, Cincinnati.

Wheels, Water

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
DeLaval Steam Turbine Co., Trenton, N. J.
Fitz Water Wheel Co., Hanover, Pa.
Hoppes Water Wheel Co., The, Springfield, Ohio.

Whistles, Gong

Mine Safety Appliances Co., Pittsburgh.

Whistles, Steam and Air

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Lunkenheimer Co., The, Cincinnati, Ohio.
Powell, Wm., Co., The, Cincinnati, Ohio.

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(See "Machines and Equipment, Painting and Whitewashing")

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(See "Tape and Wicking, Asbestos" and "Packing, Asbestos, Wick")

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Buffalo Batt & Belt Corp., Depew, N. Y.
Garlock Packing Co., The, Palmyra, N. Y.
Goodall Rubber Co., Philadelphia, Pa.
Home Rubber Co., Trenton, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Massasoit Mfg. Co., Fall River, Mass.
Standard Oil Co. of New York, The, New York, N. Y.
Standard Packing & Rubber Co., New York.
Toledo Pressed Steel Co., The, Toledo, O.
Walters Manufacturing Co., Oakmont, Pa.
Western Packing & Supply Co., Chicago.

Wicking, Felt

Advance Packing & Supply Co., Chicago.
Booth Felt Co., Inc., Brooklyn, N. Y.

Wicks—Mine Lamp, Lantern and Torch

Walters Manufacturing Co., Oakmont, Pa.
Western Packing & Supply Co., Chicago.

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Columbus-McKinnon Chain Corp., Tonawanda, N. Y.
Dake Engine Co., Grand Haven, Mich.
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Euclid-Armington Corp., Euclid, Ohio.
Fridy Hoist & Machinery Co., Mountville, Pa.
Harrington Co., The, Philadelphia, Pa.
Jeffrey Manufacturing Co., The, Columbus, Ohio.
Round, David, and Son, Cleveland, Ohio.
Schultz, A. L., & Son, Chicago, Ill.
Shepard Miles Crane and Hoist Corp., Montour Falls, N. Y.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stimmel Winch Co., Long Island City, N.Y.
United Machinery Co., Portland, Ore.
Wright Manufacturing Co., York, Pa.

Winders, Spring

Porter Manufacturing Co. (Division of Monarch Metal Co.), Chicago, Ill.

Wipers, Machine

(See "Cloths, Wiping, Machine")

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Hazard Wire Rope Co., Wilkes-Barre, Pa.
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Northwestern Barb Wire Co., Sterling, Ill.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Republic Steel Corp., Youngstown, Ohio.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Barbed

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Jones & Laughlin Steel Corp., Pittsburgh.
Keystone Steel & Wire Co., Peoria, Ill.
Northwestern Barb Wire Co., Sterling, Ill.
Page Steel & Wire Co., and Wire Division of American Chain Co., Inc., Monessen, Pa.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Blasting, Connecting and Leading

American Steel & Wire Co., Chicago, Ill.

Wire—Brass, Copper, Nickel, Phosphor Bronze and Silver

American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York.
Bristol Brass Corp., The, Bristol, Conn.
Buffalo Wire Works Co., Inc., Buffalo.
Michigan Wire Cloth Co., Detroit, Mich.
Prier Brass Mfg. Co., Kansas City, Mo.
Roebling's, John A., Sons Co., Trenton, N. J.
Scovill Mfg. Co., Waterbury, Conn.
Weldit Acetylene Co., Detroit, Mich.
Wickwire Spencer Steel Co., New York.

Wire, Broom, Tinned

American Steel & Wire Co., Chicago, Ill.
Osborn Manufacturing Co., The, Cleveland.
Rinn, Albert E., Co., Allentown, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Wire Cloth

(See "Cloth, Wire")

Wire, Fence, Barbed and Smooth

American Steel & Wire Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Jones & Laughlin Steel Corp., Pittsburgh, Pa. (Smooth only)
Northwestern Barb Wire Co., Sterling, Ill.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Sheffield Steel Corp., Kansas City, Mo.
Wheeling Corrugating Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.

Wire, Fuse

American Steel & Wire Co., Chicago, Ill.
Bussmann Mfg. Co., St. Louis, Mo.
Roebling's, John A., Sons Co., Trenton, N. J.

Wire, Insulated

American Steel & Wire Co., Chicago, Ill.
Anaconda Wire & Cable Co., New York.
General Electric Co., Schenectady, N. Y.
Roebling's, John A., Sons Co., Trenton, N. J.
Simplex Wire & Cable Co., Boston, Mass.

Wire, Lead

American Steel & Wire Co., Chicago, Ill.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bussmann Mfg. Co., St. Louis Mo.
Consolidated Metals Corp., Detroit, Mich.
General Electric Co., Schenectady, N. Y.
Hercules Powder Co., Inc., Wilmington, Del.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Rochester Lead Works, Rochester, N. Y.
Simplex Wire & Cable Co., Boston, Mass.

Wire, Music

American Steel & Wire Co., Chicago, Ill.
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Frasse, Peter A., & Co., Inc., New York.

Roebling's, John A., Sons Co., Trenton, N. J.
Wickwire Spencer Steel Co., New York.

Wire, Solder

Atkins, E. C., and Co., Indianapolis, Ind.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Canfield, M. C., Sons Co., Newark, N. J.
Consolidated Metals Corp., Detroit, Mich.
Eagle-Picher Lead Co., The, Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Great Lakes Chemical Works, Detroit, Mich.
Hewitt Metals Corp., Detroit, Mich.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit.
Mueller Brass Co., Port Huron, Mich.
National Lead Co., New York, N. Y.
Rochester Lead Works, Rochester, N. Y.
Wickwire Spencer Steel Co., New York.

Wire, Spooled and Coiled

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
Anaconda Wire & Cable Co., New York.
General Electric Co., Schenectady, N. Y.
National Lead Co., New York, N. Y.
Sheffield Steel Corp., Kansas City, Mo.
Wickwire Spencer Steel Co., New York.

Wire, Straightened and Cut

American Brass Co., The, American Metal Hose Branch, Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
Kansas City Smelting Co., Kansas City, Mo.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Wickwire Bros., Cortland, N. Y.
Wickwire Spencer Steel Corp., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Wire, Threaded

American Steel & Wire Co., Chicago, Ill.
Pheoll Mfg. Co., Chicago, Ill.
Ryerson, Joseph T., & Son, Inc., Chicago.
Washburn Co., The, Worcester, Mass.

Wire and Rods, Welding

Air Reduction Sales Co., New York, N. Y.
American Steel & Wire Co., Chicago, Ill.
Ampco Metal, Inc., Milwaukee, Wis.
Atlas Foundry Co., Irvington, N. J.
Bastian-Blessing Co., Chicago, Ill.
Bristol Brass Corp., The, Bristol, Conn.
Central Steel & Wire Co., Chicago, Ill.
Colmonoy, Inc., Los Nietos, Calif.
Consolidated Metals Corp., Detroit, Mich.
Dockson, C. H., Co., Detroit, Mich.
Frasse, Peter A., & Co., Inc., New York.
General Electric Co. (Merchandise Dept.), Bridgeport, Conn
K-G Welding & Cutting Co., Inc., New York, N. Y.
Lincoln Electric Co., The, Cleveland, O.
Linde Air Products, Inc., The, New York.
Modern Engineering Co., St. Louis, Mo.
Mueller Brass Co., Port Huron, Mich.
Page Steel & Wire Co., and Wire Division of American Chain Co., Inc., Monessen, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Ryerson, Joseph T., & Son, Inc., Chicago.
Sight Feed Generator Co., Richmond, Ind.
Simplex Wire & Cable Co., Boston, Mass.
Smith Welding Equipment Corp, Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Union Drawn Steel Co., Beaver Falls, Pa.
Weldit Acetylene Co., Detroit, Mich.
Wheeling Steel Corp., Wheeling, W. Va.
Wickwire Brothers, Cortland, N. Y.
Wickwire Spencer Steel Co., New York.
Youngstown Sheet and Tube Co., Youngstown, Ohio.

Woodworkers, Universal

Boice, W. B. & J. E., Toledo, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Greenlee Bros. & Co., Rockford, Ill.
Leach Co., Oshkosh, Wis.
Master Woodworker Mfg. Co., Detroit.
Northfield Foundry & Machine Co., Northfield, Minn.
Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
Swett, Frank W., & Son, Chicago, Ill.
Wallace, J. D., & Co., Chicago, Ill.

Woodworking Machinery

(See "Machines, Woodworking," and Specific Items)

Wool, Lead

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Eagle-Picher Lead Co., The, Chicago, Ill.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Rinn, Albert E., Co., Allentown, Pa.
Rochester Lead Works, Rochester, N. Y.

Wool, Mineral

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Eagle-Picher Lead Co., The, Chicago, Ill.
Smith & Kanzler, Inc., Elizabeth, N. J.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
Union Fibre Sales Co., Winona, Minn. (Also rock wool)
U. S. Mineral Wool Co., New York, N. Y.

Wool, Steel

American Steel Wool Mfg. Co., Inc., New York, N. Y.
Rinn, Albert E., Co., Allentown, Pa.

Workshops, Home (Woodworking)

Delta Mfg. Co., Milwaukee, Wis.
Walker-Turner Co., Inc., Plainfield, N. J.
Wallace, J. D., & Co., Chicago, Ill.

Wrenches, Adjustable

Barcalo Mfg. Co., Buffalo, N. Y.
Bemis & Call Co., Springfield, Mass.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Heller Brothers Co., Newark, N. J.
International Nulyp Tool Corp., Oswego, N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Oliver-Barth Jack Co., Milwaukee, Wis.
Peck, Stow & Wilcox Co., Southington, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Scholler Mfg. Co., Inc., Buffalo, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Adjustable "S"

Barcalo Mfg. Co., Buffalo, N. Y.
Bemis & Call Co., Springfield, Mass.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
International Nulyp Tool Corp., Oswego, N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.

NEW TRIMO TOOL!
THE PERFECT HANDLE MONKEY WRENCH

Drop forged bar and jaw for extra strength and service — a finely made steel monkey wrench of proved design now made by the makers of famous Trimo Tools.

"Perfect Handle" wrenches in sizes 6"-21" with all metal or knife handle.

Product of
TRIMONT MFG. CO., INC.
Roxbury (Boston), Mass.

Wrenches, Alligator Type

Armstrong Bros. Tool Co., Chicago, Ill.
Bonney Forge & Tool Works, Allentown, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Roebling's, John A., Sons Co., Trenton, N. J.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Automobile

Armstrong Bros. Tool Co., Chicago, Ill.
American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Crescent Tool Co., Jamestown, N. Y.
Evansville Tool Works, Inc., Evansville, Ind.
Harris & Reed Mfg. Co., Chicago, Ill.
Heller Brothers Co., Newark, N. J.
Kilborn and Bishop Co., The, New Haven, Conn.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Priddle, Arthur, San Francisco, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Bicycle

Barcalo Mfg. Co., Buffalo, N .Y.
Billings & Spencer Co., The, Hartford, Conn.
Crescent Tool Co., Jamestown, N. Y.
Harris & Reed Mfg. Co., Chicago, Ill.
Heller Bros. Co., Newark, N. J.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Box

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Hinsdale Mfg. Co., Chicago, Ill.
Husky Corp., Kenosha, Wis.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Brace

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Cincinnati Tool Co., The, Cincinnati, Ohio.
Husky Corp., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Cap Screw

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Evansville Tool Works, Inc., Evansville, Ind.
Kilborn and Bishop Co., The, New Haven, Conn.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Car

Advance Car Mover Co., Inc., Appleton, Wis.
Appleton-Atlas Car Mover Corp., Milwaukee, Wis.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Loane Engineering Co., Baltimore, Md.

SWACO

Safety

Hopper CAR Wrench

LIST PRICE

$20.00

The SWACO Hopper Car Wrench assures safety and speed in opening drop bottom cars. The two-way pawl mechanism and the ball bearing reversible ratchet head (exclusive SWACO features) give positive action under all working conditions. All parts are of steel testing 70,000 to 80,000 lbs. tensile strength.

Safety Wrench & Appliance Co.

56 Commercial St.

Worcester, - Mass.

Also see our Car Mover advertisement near "Car Mover" listings.

Safety Wrench & Appliance Co., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Car Dumping

Advance Car Mover Co., Inc., Appleton, Wis.
Rowell Mfg. Co., Appleton, Wis. (Combination car and paper wrenches)
Safety Wrench & Appliance Co., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Chuck

Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Cock—Steam and Gas

Lunkenheimer & Co., The, Cincinnati, O.
Stevens, Walden, Inc., Worcester, Mass.
Walworth Co., New York, N. Y.

Wrenches, Combination Pipe and Nut

Bemis & Call Co., Springfield, Mass.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Kilborn and Bishop Co., The, New Haven, Conn.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Flange

Heller Brothers Co., Newark, N. J.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Hydrant

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Clow, James B., & Sons, Chicago, Ill.
Drew, C., & Co. Kingston Mass.
Heller Bros. Co., Newark, N. J.
Kennedy Valve Mfg. Co., The, Emlira, N. Y.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Lag Screw

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Blackhawk Mfg. Co., Milwaukee, Wis.
Crescent Tool Co., Jamestown, N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Klein, M., & Sons, Chicago, Ill.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Lathe Dog

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Linemen's

Billings & Spencer Co., The, Hartford, Conn.
Crescent Tool Co., Jamestown, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Klein, M., & Son, Chicago, Ill.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Priddle, Arthur, San Francisco, Calif.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Monkey

(See "Wrenches, Adjustable")

Wrenches, Oil Well

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Heller Brothers Co., Newark, N. J.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Priddle, Arthur, San Francisco, Calif.
Ridge Tool Co., The, Elyria, Ohio.

ARMSTRONG

Drop Forged WRENCHES

Today's fastest growing line in sales. Highest quality. Wrenches to meet every need. All standard millings. Special carbon steel, or thinner, stronger Chrome-Vanadium Steel. Singly, on boards or in sets.

50 Types All Sizes 1 Quality

Write for Catalog B-35

ARMSTRONG BROS. TOOL CO.

"The Tool Holder People"

332 N. Francisco Ave., CHICAGO, U. S. A.

Safety Wrench & Appliance Co., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y

Wrenches, Open End

Armstrong Bros Tool Co., Chicago, Ill.
Billings & Spencer Co., Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Evansville Tool Works, Evansville, Ind.
Harris & Reed Mfg. Co., Chicago, Ill.
Husky Corp., Kenosha, Wis.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., New Haven, Conn.
Klein, M., & Son, Chicago, Ill.
Kraeuter & Co., Inc., Newark, N. J.
Plomb Tool Co., Los Angeles, Calif.
Priddle, Arthur, San Francisco, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Pipe

Armstrong Bros Tool Co., Chicago, Ill.
Belden Machine Co., New Haven, Conn.
Billings & Spencer Co., Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Crescent Tool Co., Jamestown, N. Y.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J
Henry & Allen, Auburn, N. Y.
International Nulyp Tool Corp., Oswego, N. Y.
Maydole, David, Tool Corporation, Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Quadriga Mfg. Co., The, Chicago, Ill.
Ridge Tool Co., The, Elyria, Ohio.
Rowell Mfg. Co., Appleton, Wis. (Combination car and pipe wrenches)

ARMSTRONG BROS.

PIPE WRENCHES and TONGS

Patented Wrench is All Steel with 10 improved features. Chain Tongs have jaws forged from special steel, heat treated, tempered, tested. Handles formed from carbon steel have both stiffness and "spring." Chains proofteted to 2/3 strength (3,660 to 40,000 pounds). For pipe up up 18".

Write for Catalog

ARMSTRONG BROS. TOOL CO.

"The Tool Holder People"

332 N. Francisco Ave., CHICAGO, U. S. A.

LOWELL

REVERSIBLE RATCHET WRENCHES

1916 Pattern

No.	Length of Handle, In.	Size of Opening, Inches: Square	Size of Opening, Inches: Hexagon	List Prices: With One Gear Each	List Prices: Extra Gears Each
0	7	¼, 5/16, ½	½, 11/32	$5.00	$1.00
1	10	¼, ½, 5/8	¼, 9/16, 11/32	6.00	1.00
2	12	½, 5/8, 9/16, ¾	9/16, 11/32, 7/16, 11/32	7.00	1.25
3	15	5/16, 9/16, ¾, 9/16, 7/16, 11/32	11/32, 1 1/16, 1 1/16, 1¼	9.00	1.50
3½	18	1, 1 1/16, 1¼	.....	10.00	1.50
4	18	1, 1 1/16, 1¼, 1 3/16, 1 7/16	1 1/16, 1¼, 1 7/16, 1 5/8	12.00	2.00
4½	24	1½	1 9/16	14.00	2.00

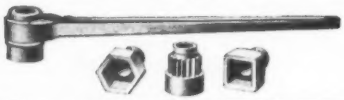
CONVENIENCE—They will turn nuts on or off without removing the Wrench, and soon make good their cost by saving labor.

GUARANTEE—We stand back of these tools in every way and warrant them in all respects to give satisfaction.

Red Face Bridge Builders' Wrenches

No.	Length of Handle, feet	Apprx. Wt. pounds	Size of Opening, Inches: Square	Size of Opening, Inches: Hexagon	List Prices: With One Gear Each	List Prices: Extra Gear Each
1	3	11	1, 1 1/16, 1 1/8, 1 3/16, 1 7/16	1 1/8, 1¼, 1 3/8, 1 5/8	$14.00	$2.00
2	3	14	1¼, 1½, 1 5/8, 1 9/16, 2	1 9/16, 2, 2 1/16, 2 1/8	16.00	4.00
3	3	23	2, 2 1/16, 2 3/16, 2 1/8, 2 5/16, 2 3/8, 2 1/2	2 3/8, 2 9/16, 2¾, 2 15/16, 3 1/8	24.00	6.00
4	3½	32	2½, 2¾, 3, 3 1/16, 3 7/16	3 1/8	30.00	8.00
5	3½	40	3¼, 3½, 3¾	4¼, 4 5/8	35.00	10.00

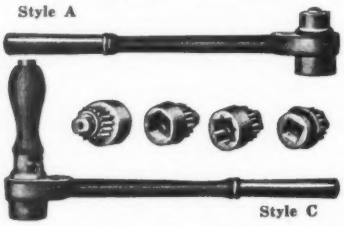
Red Socket Steel Socket Bridge Wrenches



No.	Length of Handle, feet	Apprx. Weight pounds	For Nuts Short Diameter: Square or Hexagon	List Prices: With One Socket Each	List Prices: Extra Socket Each
1	2	10	1, 1 1/16, 1 1/8, 1 7/16, 1 5/8, 1 9/16, 2	$10.00	$3.00
1½	3	12		14.00	3.00
2	3	23	2, 2 3/16, 2 1/8, 2 5/16, 2¼, 2 9/16, 3 1/8	20.00	6.00
2½	4	26		24.00	6.00
3	3	50	3 1/8, 3 1/2, 3 7/8, 4 1/8, 4 5/8, 5	40.00	12.00
3½	4	54		45.00	12.00

Red Socket Wrenches

Style A



Style C

No	Length Handle Inches	For Nuts Short Diameter: Square	For Nuts Short Diameter: Hexagon	List Prices: With One Socket Each	List Prices: Extra Socket Each
1	12	⅛ taper, ½, 9/16, 11/32, 7/16, 11/32, 5/16, 11/32, 9/16, 11/32, 7/16, 11/32, 1 1/16, 1¼	1 1/16, 1¼	StyleA $4.00 StyleC 5.00	$1.00
2	16	1, 1 1/16, 1 1/8, 1 1/4, 1¼, 1 7/16	1 1/16, 1¼, 1 7/16, 1 5/8	6.00	2.00
3	20	1, 1 1/16, 1¼, 1 7/16, 1 5/8, 1 9/16	1, 1 1/16, 1¼, 1 7/16, 1 5/8, 1 9/16	10.00	3.00

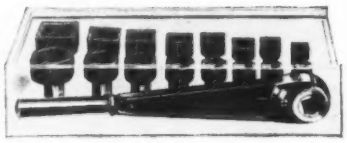
Nos. 2 and 3A

Nos. 2 and 3A

No. 2, Style A has a 1 1/16 inch hole for bolt to pass through socket.

No. 3, Style A has a 1⅛ inch hole.

Red Socket Multiplex Wrenches



No. 1—with List Prices

No. 1 Wrench has a 12-inch Handle and will take square or hexagon nuts. ¼, 5/16, ⅜, 7/16, ½, 9/16, ⅝, ¾-inch Bolt Diameters. ½, 11/32, 13/16, 29/32, ⅞, 31/32, 1 1/16, 1¼-inch Smaller Outside Diameters.

Price on Wrench Complete with sixteen Sockets $10.00
Price on Wrench only 6.00
Price on Extra Sockets, each ..... .50

No. 2—with List Prices

No. 2 Wrench has a 20-inch Handle and will take square or hexagon nuts. ¾, ⅞, 1, 1⅛, 1¼-inch Bolt Diameters. 1¼, 1 7/16, 1⅝, 1 13/16, 2-inch Smaller Outside Diameters.

Price on Wrench Complete with ten Sockets $18.00
Price on Wrench only 10.00
Price on Extra Sockets, each 1.00

LOWELL WRENCH CO.

Worcester, Mass.

California Representative, F. SOMERS PETERSON CO., 57 California St., San Francisco, Calif.

Sandvik Saw & Tool Corp., New York, N. Y.
Schollhorn, Wm., Co., The, New Haven, Conn.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
U. S. Hame Co., Buffalo, N. Y.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Pipe, Brass and Nickel

Belden Machine Co., The, New Haven, Conn.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Reed Manufacturing Co., Erie, Pa.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Warnock Manufacturing Co., Worcester, Mass.

Wrenches, Pipe, Chain

Appleton Atlas Car Mover Corp., Milwaukee, Wis.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Crane Co., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J.
Ridge Tool Co., The, Elyria, Ohio.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Walworth Co., New York, N. Y.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Railway Track

Armstrong Bros. Tool Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York.
Husky Corp., Kenosha, Wis.
Klein-Logan Co., The, Pittsburgh, Pa.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Priddle, Arthur, San Francisco, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Stanley Rule & Level Plant, The, New Britain, Conn.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Ratchet

American Swiss File & Tool Co., Elizabeth, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Greene, Tweed & Co., New York, N. Y.
Heller Brothers Co., Newark, N. J.
Keystone Mfg. Co., Buffalo, N. Y.
Lowell Wrench Co., Worcester, Mass.
Plomb Tool Co., Los Angeles, Calif.
Safety Wrench & Appliance Co., Worcester, Mass.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Saw

Atkins, E. C., and Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Eagle Saw Co., Chattanooga, Tenn.
Hoe, R., & Co., Inc., Bronx, New York.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Set Screw

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Holo-Krome Screw Corp., Bristol, Conn.
Kilborn and Bishop Co., The, New Haven, Conn.
Standard Pressed Steel Co., Jenkintown, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, Ohio.
Vichek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Socket

American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong Bros. Tool Co., Chicago, Ill.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Channon, J. H., Corp., Chicago, Ill.

RIGID WRENCHES

All Heavy - Duty

RIGID Straight and End Wrenches. Sizes 6" to 60".

LIST PRICES

Size	
6-E6	$1.90
8-E8	2.20
10-E10	2.85
14-E14	3.85
18-E18	5.50
24-E24	8.50
36-E36	15.00
48	25.00
60	40.00

E—End Pattern Wrench
Rubber Grip — 10", $3.60 doz.; 14", $4.80 doz.

New Heavy-Duty 7000 lb. Super-X Alloy handle. The 24" RIGID holds 3½ ton load 9½ inches from the jaw. You can't break or distort the housing. Hook and replaceable heel jaw of chrome molybdenum nickel steel. Hook jaw full-floating, with handy pipe scale. Jaws slip-and-lock proof. Adjusting nut turns easily in open housing.

RIGID SUPER-SIX and SUPER-FOUR

Super-Four, 1" to 4½".

Super-Six, 2" to 6".

List Prices—Super-Four, $17.00; Super-Six, $22.00.

Compound leverage, 10 times that of 48" wrench. For heavy-duty and crowded-conditions. Action of wrench and trunnion does not disturb joints already tightened. Tightens 6" pipe or loosens old rusted joints that 3 to 4 men can't move with ordinary wrenches.

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Prices quoted above subject to usual trade discounts.

THE RIDGE TOOL CO.
ELYRIA, OHIO, U. S. A.

"TRIMO - ALLOY"

A NEW PIPE WRENCH MADE ENTIRELY OF DROP FORGED, HEAT TREATED ALLOY STEEL

The enormous increase in strength now accomplished by making this pipe wrench from chrome, molybdenum and nickel steel alloys gives a safety factor never before obtained in a pipe wrench.

Accident hazard is lowered, working life is prolonged, and dependable, non-locking, non-slipping operation is assured by the new, improved "Trimo-Alloy" pipe wrench.

The new tool is identified by the symbol CR-MOL stamped on the hook jaw, "Trimo-Alloy", etched on the frame, and the red Trimo tag wired to the handle. All parts are replaceable, including the long-wearing, sure-grip insert jaw.

The mill supply distributor carries complete stock of Trimo wrenches and replacements parts.

•

TRIMONT MFG. CO., INC.
ROXBURY (BOSTON), MASS.

Leading producers of quality pipe wrenches for 50 years

ARMSTRONG

Socket Wrenches, Ratchet Wrenches, Sets

Sets in steel cases for all industrial and automotive needs. All types.

Reversible Socket wrenches—sizes to 5 inch opening. Sockets lock on—can't fall off.

Write for Catalog

ARMSTRONG BROS. TOOL CO.
"The Tool Holder People"
332 N. Francisco Ave., CHICAGO, U. S. A

Cincinnati Tool Co., The, Cincinnati, Ohio.
Husky Corp., Kenosha, Wis.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn and Bishop Co., The, New Haven, Conn.
Lowell Wrench Co., Worcester, Mass. (Ratchet socket)
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Snap-On Tools, Inc., Kenosha, Wis.
Starrett, L. S., Co., The, Athol, Mass.
Stevens, Walden, Inc., Worcester Mass.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spanner

Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Lunkenheimer Co., The, Cincinnati, Ohio.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Snap-On Tools, Inc., Kenosha, Wis.
Stempel Fire Extinguisher Manufacturing Co., St. Louis, Mo.
Stevens, Walden, Inc., Worcester, Mass.
Taft-Peirce Manufacturing Co., Woonsocket, R. I.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spark Plug

American Swiss File & Tool Co., Elizabeth, N. J.
Barcalo Mfg. Co., Buffalo, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Bridgeport Hdwe. Mfg. Corp., The, Bridgeport, Conn.
Kilborn and Bishop Co., The, New Haven, Conn.
Miller Tool & Mfg. Co., Inc., Detroit, Mich.
Plomb Tool Co., Los Angeles, Calif.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Snap-On Tools, Inc., Kenosha, Wis.
Stevens, Walden, Inc., Worcester, Mass.
Victor Instrument Mfg. Co., Inc., New York, N. Y.
Vlchek Tool Co., The, Cleveland, Ohio.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Spud

American Pipe Tool Co., Chicago, Ill.
Bernz, Otto, Co., Inc., Rochester, N. Y.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Nye Tool & Machine Works, The, Chicago.
Plomb Tool Co., Los Angeles, Calif.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Structural and Construction

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Lowell Wrench Co., Worcester, Mass. (Ratchet)
Priddle, Arthur, San Francisco, Calif.
Safety Wrench & Appliance Co., Worcester, Mass.
Stevens, Walden, Inc., Worcester, Mass.
Trimont Mfg. Co., Roxbury, Boston, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Tap and Reamer

Alvord-Polk Tool Co., Millersburg, Pa.
American Swiss File & Tool Co., Elizabeth, N. J.
Bay State Tap & Die Co., Mansfield, Mass.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
Champion Blower and Forge Co., Lancaster, Pa.
Conant & Donelson Co., Conway, Mass.
Evansville Tool Works, Inc., Evansville, Ind.
Goodell-Pratt Co., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Lowell Wrench Co., Worcester, Mass.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Millers Falls Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Conn.
Standard Tool Co., Cleveland, Ohio.
Stevens, Walden, Inc., Worcester, Mass.

Wrenches, Tool Post

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Wrenches, Twin

Stevens, Walden, Inc., Worcester, Mass.
Williams, J. H., & Co., New York, N. Y.

Yarn and Twine, Asbestos

Acme Asbestos Covering & Flooring Co., Chicago, Ill.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Ferodo and Asbestos, Inc., New Brunswick, N. J.
Garlock Packing Co., The, Palmyra, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
Rhopac Products Corp., Chicago, Ill.
Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.

Yarn, Fodder (Tarred Sisal)

Fitler, Edwin H., Co., The, Philadelphia.
Hooven & Allison Co., The, Xenia, Ohio.

Yarn, Lath (Tarred Sisal)

Fitler, Edwin H., Co., The, Philadelphia.
Hooven & Allison Co., The, Xenia, Ohio.

Zinc Sheets and Bars

Atlantic Zinc Works, Inc., New York, N. Y.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Consolidated Metals Corp., Detroit, Mich.
Great Lakes Chemical Works, Detroit.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Smelting & Refining Co., Detroit. (Bars and slabs)
Murphy, E. L., Chicago, Ill.
National Lead Co., New York, N. Y.
New Jersey Zinc Co., The, New York, N. Y.
Northwest Lead Co., Seattle, Wish. (Bars)

TRADE NAME INDEX

an Alphabetical List of Trade Names Employed by Manufacturers of Mill, Mine, Power, and General Industrial Supplies, Equipment and Tools, with the Names of the Manufacturers and the Products to Which They Refer.

THE fact that trade names appear in this list does not mean that we guarantee them to be registered or the property of the manufacturers concerned. We have simply asked these manufacturers for trade names used by them exclusively or under license from some other manufacturer, and have taken them as submitted to us, except as explained hereafter.

We have not used trade names where they are the same as the company's name or where the company's name constitutes the first part of the trade name, except where we have felt there might be some doubt as to what company the trade name belonged. In some cases, where a combination name has been submitted, such as "Smith Peerless," we have eliminated the manufacturer's name (in this example, "Smith") and used the other part of the trade name (in this example, "Peerless"). Where the trade name is the same as the manufacturer's name, the directory user can locate the latter under the product heading in the Classified List.

In cases where two or more companies have submitted the same trade name for the same product and there is any question as to the rightful owner of the trade name, we have eliminated it entirely from our list.

WARNING—For the reasons given herewith and for other reasons, inaccuracies may have occurred in this list. Therefore, no user of this directory should, without independent verification, rely upon any information appearing in this section when so doing might result in loss or damage of any kind.—Electrical Trade Publishing Co.

Where initials are shown as trade names in this list, they are grouped at the start of listings under each letter. Where two or more separated words or hyphenated words constitute a trade name, such as "Sure Hold" or "Sure-Hold," the first word standing alone determines the location of the listing, whereas when the two words are used as one, such as "Surehold," the name is listed in order according to the entire word.

A

A (in diamond)—Bull ropes. The Edwin H. Fitler Co., Philadelphia, Pa.

AAA—Hack saw blades. E. C. Atkins and Co., Indianapolis, Ind.

A.B.C—Emery. Keystone Emery Mills, Philadelphia, Pa.

A.B.C.—Wire belt lacing. Kerr & Co., Inc., New York, N. Y.

ABC HEAT RESISTING BELT—Stitched canvas belting. Main Belting Co., Philadelphia, Pa.

A-C—Friction clutch couplings and pulleys. Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

A.C.E.—Expansion bolt shields. Arrow Expansion Bolt Co., Marion, Ohio.

AC SPRAYER—Portable electric spray unit. Simplex Spray Equipment Co., Chicago, Ill.

A.C.O.—Cutting oil. C. N. Sutton Chemical Co., Chicago, Ill.

A.E.M.—Hydrometers. Moeller Instrument Co., Inc., Brooklyn, N. Y.

A.M.—Drilling and tapping machines. Adolph Muehlmatt, Cincinnati, Ohio.

A-MAL-GAM—Welding compound. Smith Welding Equipment Corp., Minneapolis, Minn.

A-S—Circular saw set. E. C. Atkins and Co., Indianapolis, Ind.

A-S-E—Steel shop equipment. All-Steel-Equip Co., Inc., Aurora, Ill.

AARON—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.

ABCO—Brass ferrules, flanges, cocks, solder, nipples, etc. The Atlas Brass Foundry Co., Columbus, Ohio.

ABRAM—Railroad car movers and cement finishing tools. Main Belting Co., Philadelphia, Pa.

ACCO—Chain. American Chain Co., Inc., Bridgeport, Conn.

ACCOPAC—Cork gaskets. Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.

ACCURATE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.

ACE—Band saws. Up-to-date Machine Works, Inc., Chicago, Ill.

ACE—Woven brake lining. Russell Manufacturing Co., Middletown, Conn.

ACE HIGH—Hose. Home Rubber Co., Trenton, N. J.

ACE LIGHTWEIGHT—Shovels and spades. Ames. Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.

ACIDSEAL—Paint. The B. F. Goodrich Rubber Co., Akron, Ohio.

ACME—Buffing compositions. Hanson-Van Winkle-Munning Co., Matawan, N. J.

ACME—Casting brushes. The Osborn Manufacturing Co., Cleveland, Ohio.

ACME—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.

ACME—Grinder shield. Chicago Eye Shield Co., Chicago, Ill.

ACME—Hand chain hoists. Union Mfg. Co., New Britain, Conn.

ACME—Leather belting. Bonner & Barnewell, Inc., New York, N. Y.

ACME—Post hole diggers. Iwan Brothers, South Bend, Ind.

ACME—Rapping plates and draw keys. Timmis & Clissold, Bound Brook, N. J.

ACME BULB—Gauge glass gaskets and washers. Gilbert & Co., Hyattsville, Md.

ACORN—Pump connections. Stevens, Walden, Inc., Worcester, Mass.

ACORN—Round leather belting. Graton & Knight Co., Worcester, Mass.

ACROLITE—Grinding wheels. E. C. Atkins and Co., Indianapolis, Ind.

ACTENIZED SUMET—Bronze bearings. Sumet Corp., Buffalo, N. Y.

ADACAST—Dry refractory cement. Botfield Refractories Co., Philadelphia, Pa.

ADACHROME PLASTIC SUPER-CEMENT—Chrome base cement. Botfield Refractories Co., Philadelphia, Pa.

ADAHEARTH—Chrome earth cement. Botfield Refractories Co., Philadelphia.

ADALOX-DURUNDUM—Sandpaper, cloth and combination. Behr-Manning Corporation, Troy, N. Y.

ADAMANT—Babbitt. Magnolia Metal Co., Elizabeth, N. J.

ADAMANT—Fire brick and cement. Botfield Refractories Co., Philadelphia, Pa.

ADAPATCH—Plastic fire brick material. Botfield Refractories Co., Philadelphia.

ADAPRODUCTS—High temperature cement, etc., Botfield Refractories Co., Philadelphia, Pa.

ADDOWEIGHT—Totalizing dial scales. Merrick Scale Mfg. Co., Passaic, N. J.

ADJUSTI—Sump covers and discharge pipes. Yeomans Brothers Co., Chicago.

ADJUSTOFIT—Steel bins. Art Metal Construction Co., Jamestown, N. Y.

ADMIRAL—Measuring tape. Eugene Dietzgen Co., Chicago, Ill.

ADPASCO—Pump packing. Advance Packing and Supply Co., Chicago, Ill.

AECO—Metallic packing. Illinois Scully Steel Warehouse Co., Chicago, Ill.

UMI

AEMCO—Ingot iron and steel sheets and plates, and spiral welded pipe. The American Rolling Mill Co., Middletown, Ohio.
AEQUITAS — Printing scales. Merrick Scale Mfg. Co., Passaic, N. J.
AERO—Fire hose. The Republic Rubber Co., Youngstown, Ohio.
AERO-VIBE—Vibrating screens. Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
AER-O-MIX—Water mixer. Vogt Brothers Mfg. Co., Louisville, Ky.
AETNA—Elevator belting. The Mechanical Rubber Co., Passaic, N. J.
AETNA—Post hole diggers. Iwan Brothers, South Bend, Ind.
AFMIC—Hose. New York Belting & Packing Co., Passaic, N. J.
AGITATOR SPRAYIT—Paint sprays. The Electric Sprayit Co., South Bend, Ind.
AGRILITE—Bearing metal. American Injector Co., Detroit, Mich.
AGRIPPA—Clamps and tool holders. J. H. Williams & Co., New York, N. Y.
AIR BOOSTER—Blow guns. Baker-Hansen Mfg. Co., Alameda, Calif.
AIRCO—Oxygen and acetylene. Air Reduction Sales Co., New York, N. Y.
AIRCO-DAVIS-BOURNONVILLE — Welding and cutting apparatus and supplies. Air Reduction Sales Co., New York, N. Y.
AIR-GAS-POP—Relief valves. The Lunkenheimer Co., Cincinnati, Ohio.
AIR KING—Universal quick-acting coupling. Dixon Valve & Coupling Co., Philadelphia, Pa.
AIR LINE—Cutting tools. Cowles Tool Co., Cleveland, Ohio.
AIR-LIQUID—Cocks. The Lunkenheimer Co., Cincinnati, Ohio.
AIRCRAFT—Hose clamps. Morganmade, Inc., Keene, N. H.
AIR-O-IZER — Heater and ventilator, The Trane Co., LaCrosse, Wis.
AIRSPRING — Automatic grease cups. Hunter Pressed Steel Co., Lansdale, Pa.
AIR-VAC—Vacuum cleaners. Baker-Hansen Mfg. Co., Alameda, Calif.
AIRXPEL—Steam traps. Wright-Austin Co., Detroit, Mich.
AJAX—Alcohol mouth blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
AJAX—Belting and hose. Hewitt Rubber Corp., Buffalo, N. Y.
AJAX—Concrete inserts. Security Insert Co., Philadelphia, Pa.
AJAX—Drill rods. Kidd Drawn Steel Co., Aliquippa, Pa.
AJAX—Fire extinguishers, engines, etc. The Safety Fire Extinguisher Co., New York, N. Y.
AJAX—Insulating varnishes and compounds. Sherwin-Williams Co., Cleveland, Ohio.
AJAX—Lawn sprinkler. W. D. Allen Manufacturing Co., Chicago, Ill.
AJAX—Steel loading chain and dredge chain. American Chain Co., Inc., Bridgeport, Conn.
AJAX—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
AKRO-METAL—Corrugated gaskets. Akron Metallic Gasket Co., Akron, Ohio.
AKRON—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
AKRONITE—Sheet packing. Akron Metallic Gasket Co., Akron, Ohio.
AKWA — Sheet packing. Consolidated Packing & Supply Co., New York, N. Y.
ALABESTOS — Valve packing. Consolidated Packing & Supply Co., New York.
ALBANY—Grease. Adam Cook's Sons, Inc., Linden, N. J.
ALCOA ALUMINUM—Chain link fence. Page Steel & Wire Division of American Chain Co., Monessen, Pa.
ALENCO—Fire hose unit cabinets. W. D. Allen Mfg. Co., Chicago, Ill.
ALERT—Portable watchman's clock. Detex Watchclock Corp., Chicago, Ill.
ALFALFA—Agricultural belting. Burrel Belting Co., Chicago, Ill.
ALFITE—Fire extinguishers and systems. American-LaFrance and Foamite Corp., Elmira, N. Y.
ALFRESCO—Paint. The Reardon Co., St. Louis, Mo.
ALGCO—Mechanical leather goods. Auburn Leather Goods Co., Inc., Hartford, Conn.
ALL METAL LINE (THE)—Sawmill machinery. Memphis Machine Works, Memphis, Tenn.
ALL PURPOSE—Bench type grinder. Foley Manufacturing Co., Inc., Minneapolis, Minn.
ALL PURPOSE SPRAYIT—Paint sprays. The Electric Sprayit Co., South Bend, Ind.
ALL-SERVICE—Gas masks. Mine Safety Appliances Co., Pittsburgh, Pa.
ALLCAR-J10—Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
ALLEN RANDALL—Bolt clippers, chain cutters and nutsplitters. H. K. Porter, Inc., Everett, Mass.
ALLGOOD CORD—Hose. Goodall Rubber Co., Philadelphia, Pa.
ALLIGATOR — Belt lacing, fasteners, hooks, pins and cutters. Flexible Steel Lacing Co., Chicago, Ill.
ALLIGATOR—Wrenches. John A. Roebling's Sons Co., Trenton, N. J.
ALLOY C—Tool steels. William Jessop & Sons, Inc., New York, N. Y.
ALLSIZE—Hose clamps. The Washburn Co., Worcester, Mass.
ALLWEATHER — Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
ALLWORK—Rubber belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ALMA—Heater brush. Worcester Brush & Scraper Co. (Division Mason-Worcester Co.), Worcester, Mass.
ALMETL—Fire doors. Merchant & Evans Co., Philadelphia, Pa.
ALNOR—Pyrometers, indicating thermometers, etc. Illinois Testing Laboratories, Inc., Chicago, Ill.
ALPHA—Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
ALPHA—Stitched canvas belting. The American Belting Companies, Baltimore, Md.
ALPO—Reamers, twist drills, etc. Alvord-Polk Tool Co., Millersburg, Pa.
ALTA—Portable electric tools. Wappat, Inc., Pittsburgh, Pa.
ALUMI-SOLDER—Aluminum solder. L. B. Allen, Inc., Chicago, Ill.
ALUMIKOTE—Aluminum paint. Goheen Corp. of New Jersey, Newark, N. J.
ALUMINWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
ALUNDUM—Grinding wheels. Norton Co., Worcester, Mass.
ALUPAK—Metallic gaskets. Felt Products Mfg. Co., Chicago, Ill.
ALVOR—Constant level oil control. The Lunkenheimer Co., Cincinnati, Ohio.
ALWAYS READY—Gasoline blow torches. Schaefer & Beyer, Newark, N. J.
ALWAYS READY—Wrenches. J. H. Williams & Co., New York, N. Y.
ALWAYS RELIABLE—Torches, furnaces and plumbers' tools. Otto Bernz Co., Inc., Rochester, N. Y.
AMALGUM—Belting leather. Charles L. Ireson Co., Philadelphia, Pa.
AMBEST—Metallic packing. Eureka Packing Co., and Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
AMBLER—Asbestos products. Keasbey & Mattison Co., Ambler, Pa.
AMBRAC—Sheets, wire rods, and tubes. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
AMCO—Brake linings, clutch facings, packings and gaskets. Asbestos Mfg. Co., Huntington, Ind.
AMCO—Humidifying apparatus. Grinnell Co., Inc., Providence, R. I.
AMCO—Soldering equipment. American Solder & Flux Co., Philadelphia, Pa.
AMERICA—Round and flat leather belting. Johnson Belting Co., New York, N. Y.
AMERICAN—Cold rolled strip steel and flat wire. Peter A. Frasse & Co., Inc., New York, N. Y.
AMERICAN—Files. Nicholson File Co., Providence, R. I.
AMERICAN—Industrial instruments. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
AMERICAN—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
AMERICAN—Water meters. Buffalo Meter Co., Buffalo, N. Y.
AMERICAN BEAUTY — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
AMERICAN MARINE—Babbitt. United American Metals Corp., Brooklyn, N. Y.
AMERICAN SEAL—Cement, compounds, paints, etc. The Wm. Connors Paint Mfg. Co., Troy, N. Y.
AMERICORE—Electrical wire and cables. American Steel & Wire Co., Chicago, Ill.
AMES ALLOY—Packing. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
AMEXCEL—Stocks and dies. American Pipe Tool Co., Chicago, Ill.
AMEXO—Roof coating. American Asphalt Paint Co., Chicago, Ill.
AMINCO—Refrigeration specialties. American Injector Co., Detroit, Mich.
AMPERE—Canvas stitched belting. Victor-Balata & Textile Belting Co., New York, N. Y.
ANACONDA—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
ANACONDA — Non-ferrous sheets, rod, pipe, etc. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
ANACONDA — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
ANAMITE—Valve discs, hydraulic packing and water hose. Consolidated Packing & Supply Co., New York, N. Y.
ANCHOR—Raw hide lace leather. California Tanning Co., St. Louis, Mo.
ANCHOR—Leather belting. Page Belting Co., Concord, N. H.
ANCHOR—Non-ferrous metals. Federated Metals Corp., New York, N. Y.
ANCHOR—Rerailers, car replacers, puller jacks, etc. T. H. Edelblute Co., Reynoldsville, Pa.
ANCHORLUTE—Pipe-joint melting compound. Technical Products Co., Pittsburgh, Pa.
ANDERSON—Oil burners, Davison Combustion Co., Pittsburgh, Pa.
ANDREW—Windmills. Duplex Mfg. Co., Superior, Wis.
ANDREWS—Sockets. Morse Twist Drill & Machine Co., New Bedford, Mass.
ANDROCK—Spring cotters. The Washburn Co., Worcester, Mass.
ANGORA BRAND — Round belting. F. Raniville Co., Grand Rapids, Mich.
ANGULAR—Steel grit. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
ANHYDROUS—Belting leather. Charles L. Ireson Co., Philadelphia, Pa.
ANN ARBOR—Road rollers and baling presses. Tallman Manufacturing Co., Shelbyville, Ill.
ANNITE—Cleaning compounds. Quigley Co., Inc., New York, N. Y.
ANTELOPE—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Rubber Co., Akron, Ohio.
ANTHONY — Electric hammer attachments. Up-To-Date Machine Works, Inc., Chicago, Ill.
ANTHRACITE—Valves. The Diamond Rubber Co., Inc., Akron, Ohio.
ANTI-SLIP—Belt dressing. Geo. Callahan & Co., New York, N. Y.
ANTI SWEAT—Insulation. Johns-Manville Sales Corp., New York, N. Y.
APCO—Valves, steam traps, primers and boiler feed pump regulators. Automatic Primer Co., Chicago, Ill.
APEX—Carbon dioxide recorders and indicators. Uehling Instrument Co., Paterson, N. J.
APEX—Factory interior paint. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
APEX—Hand punches, lead seal presses, bench stops and soap dispensers. Charles Morrill, Inc., New York, N. Y.
APEX—Hose. W. H. Salisbury & Co., Inc., Chicago, Ill.
APEX—Round leather belting. Johnson Belting Co., New York, N. Y.
APOLLO — Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
AQUA-AIR—Needle valves. The Lunkenheimer Co., Cincinnati, Ohio.
AQUATITE—Roofing cement. The Wills Products Co., New York, N. Y.
ARCADE—Files. Nicholson File Co., Providence, R. I.
ARCADIA—Lubricators. Victor Lubricator Co., Chicago, Ill.
ARCGRIP—Short belt drives (idlers). I. G. Downs, Denver, Colo.
ARCH-CRIMP—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
ARCTIC—Automatic grease cups. W. D. Allen Mfg. Co., Chicago, Ill.
ARCTIC—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ARCTIC—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
ARIMEX—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
ARK—Waterproof leather belting. Philadelphia Belting Co., Philadelphia, Pa.
ARK-VAC—Belting. Philadelphia Belting Co., Philadelphia, Pa.
ARKANSAS—Oil stones. Norton Pike Co., Pike, N. H.
ARM & HAMMER—Anvils. The Columbus Anvil & Forging Co., Columbus, Ohio.
AMORIZE — Maintenance paints. Carter Paint Co., Liberty, Ind.
ARMY & NAVY—Metal polish. The Grady Mfg. Co., Long Island City, N. Y.
ARNO—Conveyor belt, hose and dredge sleeves. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
ARROW—Food conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
ARROW—Steel tanks, etc. The Novelty Steam Boiler Works Co., Baltimore, Md.
ASBESTEX — Brake linings. Asbestos Textile Co., New York, N. Y.
ASBESTO-SPONGE-FELTED — Insulation. Johns-Manville Sales Corp., New York, N. Y.
ASBESTOCEL — Insulation. Johns-Manville Sales Corp., New York, N. Y.
ASBESTOS-METALLIC — Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.

ASCOLOY—Rust and corrosion resisting alloy. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
ASGUM—Roof coating. American Asphalt Paint Co., Chicago, Ill.
ASHCROFT AMERICAN — Gauges. Consolidateed Ashcroft Hancock Co., Bridgeport, Conn.
ASHWORTH — Shut-off nozzles. Elkhart Brass Mfg. Co., Elkhart, Ind.
ASLIQUE—Cement floor paint. American Asphalt Paint Co., Chicago, Ill.
ASSEMBLY—Packing. Consolidated Packing & Supply Co., New York, N. Y.
AT-LAST-A-TRAILER—Trailers. Moloch Foundry & Machine Co., Kaukauna, Wis.
ATCO—Brake linings and blocks. Asbestos Textile Co., New York, N. Y.
ATLANTIC TYPE — Marine boiler feed pumps. Dean Brothers Co., Indianapolis, Ind.
ATLAS—Aluminum and leaded bronzes. Ampco Metal, Inc., Milwaukee, Wis.
ATLAS—Braided wire rope slings. Macwhyte Co., Kenosha, Wis.
ATLAS—Car movers. Appleton-Atlas Car Mover Corp., Milwaukeee, Wis.
ATLAS — Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
ATLAS—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
ATLAS—Horizontal power pump. The Deming Co., Salem, Ohio.
ATLAS — Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
ATLAS—Post hole diggers. Iwan Brothers, South Bend, Ind.
ATLAS—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
ATLAS—Universal joints. The Gray & Prior Machine Co., Hartford, Conn.
ATLASITE—Truck wheels. The Bassick Co., Bridgeport, Conn.
ATOMISTER — Portable electric spray unit. Simplex Spray Equipment Co., Chicago, Ill.
ATMOSET—High temperature cement. A. P. Green Fire Brick Co., Mexico, Mo.
AUROCHS — Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
AUSTIN—Separators. Wright-Austin Co., Detroit, Mich.
AUSTRALIAN—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
AUT-O-DOR—Electric door operator. Richards-Wilcox Mfg. Co., Aurora, Ill.
AUTEX—Automatic extension reels for electric lamps. The Cincinnati Specialty Mfg. Co., Inc., Cincinnati, Ohio.
AUTO-BLOC—Roller bearing hoists. David Round & Son, Cleveland, Ohio.
AUTO-SET—Saw tables and bench saws. Delta Mfg. Co., Milwaukeee, Wis.
AUTO START—Electric motors and grinders. U. S. Electrical Mfg. Co., Los Angeles, Calif.
AUTOCRAT — Bushing bronze. United American Metals Corp., Brooklyn, N. Y.
AUTOFYESTOP—Fire extinguishers. Merchant & Evans Co., Philadelphia, Pa.
AUTOTHERM—Automatic relief valves. Watts Regulator Co., Lawrence, Mass.
AUTOVEYOR—Automatic trolley bucket system. Link-Belt Co., Chicago, Ill.
AUXILIARY — Graphite feeders. The Lunkenheimer Co., Cincinnati, Ohio.
AUXILIARY SCREW—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
AVALANCHE—Snow pusher. Iwan Brothers, South Bend, Ind.
AVIALITE—Rods for valve seatings and stems. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
AXEMAN'S PRIDE—Tool handles. Hartwell Brothers, Memphis, Tenn.
AXIPLO—Deep well pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
AZAK—Solid woven belting. The American Belting Companies, Baltimore, Md.
AZROO—Roof coating. American Asphalt Paint Co., Chicago, Ill.
AZTEC—Brake linings, clutch facings and packings. Asbestos Textile Co., New York, N. Y.

B

BB—Polishing lathe. Clizbe Bros. Mfg. Co., Plymouth, Inc.
B & B—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
B-C—Milling cutters, hons and reamers. Barber-Colman Co., Rockford, Ill.
B & C—Wrenches. Bemis & Call Co., Springfield, Mass.
B & L—Tackle blocks. Boston & Lockport Block Co., East Boston, Mass.
B. & P.—Sheet and rod packings. New York Belting & Packing Co., Passaic, N. J.
B. O.—Cocks, gauges, valves, etc. L. J. Bordo Co., Inc., Glenside, Pa.
BABBITRITE—Babbitt retaining material. Products Manufacturing Co., Milwaukee, Wis.
BABCOCK—Fire Extinguishers. American-La France and Foamite Corp., Elmira, N. Y.
BABY PLUGGER—Drill. The Dallett Co., Philadelphia, Pa.
BABY RING—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BACHELDER—Adjustable steam indicators. William H. Murray, Richmond Hill, New York, N. Y.
BACO—Truck wheels. The Bassick Co., Bridgeport, Conn.
BADGER—Manila rope. John Rauschenberger Co., Milwaukee, Wis.
BADGER NEVER SLIP—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BADGER No. 5—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BADGER POWER BOY—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BADGER POWER KING—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
BAK-KUT—Leather belting. F. Raniville Co., Grand Rapids, Mich.
BAKER—Shovels, scoops, spades, etc. The Conneaut Shovel Co., Conneaut, Ohio.
BAKER FABIC—Fire hose. Hewitt Rubber Corp., Buffalo, N. Y.
BALD EAGLE — Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
BALL METAL—Bearing or babbitt metal. Monarch Metal Co., Chicago, Ill.
BALLTITE—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
BALTO — Steel tanks, etc. The Novelty Steam Boiler Works Co., Baltimore, Md.
BALTOBELT—Leather belting. Baltimore Belting Co., Baltimore, Md.
BANCO—Axes and hatchets. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BANKO—Scythes. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BANNER—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BANNER—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
BANNER—Measuring tapes, calipers and dividers. The Lufkin Rule Co., Saginaw, Mich.
BANROC — Insulation. Johns - Manville Sales Corp., New York, N. Y.
BARCLAY — Fibrous metallic packing. Consolidated Packing & Supply Co., New York, N. Y.
BARCOL—Door operators, fans, etc. Barber-Colman Co., Rockford, Ill.
BARD—Adjustable guide (bushing). Armstrong Manufacturing Co., Bridgeport, Conn.
BARKEEPERS' FRIEND — Metal polish. Walter W. Miller Co., Indianapolis, Ind.
BARRELED SUNLIGHT PLASTER SEALER—Priming and sealing coat for plaster. U. S. Gutta Percha Paint Co., Providence, R. I.
BARRETT—Jacks. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
BARRY—Pulleys, hangers, bearings, etc. R. & J. Dick Co., Inc., Passaic, N. J
BARTALOX—Abrasive paper. H. H. Barton & Son Co., Troy, N. Y.
BARTH—Lifting jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
BARTLETT — Tree trimmers. Bartlett Manufacturing Co., Detroit, Mich.
BASA—Hammers. Greene, Tweed & Co., New York, N. Y.
BASCO—4-cycle gasoline motor automotive equipment. Briggs & Stratton Corp., Milwaukee, Wis.
BASMOR—Gas fired boilers, conversion burners and relief valves. Bastian Morley Co., Laporte, Ind.
BATES—Steel mule tractors. Foote Bros. Gear & Machine Co., Chicago, Ill.
BATTLESHIP—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.
BAY CITY—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
BAY STATE—Cross-cut saws. Simonds Saw and Steel Co., Fitchburg, Mass.
BAY STATE—Suction hose and packing. Boston Woven Hose & Rubber Co., Cambridge, Mass.
BEACH—Chucks. Morse Twist Drill & Machine Co., New Bedford, Mass.
BEAMAN STADIA ARC—Transits. W. & L. E. Gurley, Troy, N. Y.
BEAR BRAND—Textile aprons. Gross Rubber Co., Sharon, Pa.
BEAUTY—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
BEAVER—Die stocks, pipe cutters, grooving tools and threading power drives. The Borden Co., Warren, Ohio.
BEAVER—Waterproof leather belting. Milwaukee Belting Co., Milwaukee, Wis.
BEAVER—Woodworker saw. Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
BEAVERKILL—Leather belting. Baldwin Belting & Leather Co., Inc., New York, N. Y.
BECKER—Vertical millers and die sinkers. Reed Prentice Corp., Worcester, Mass.
BEDROCK—Leather belting. Whiting Leather & Belting Co., Long Island City, N. Y.
BELAND—Track drills. Tallman Manufacturing Co., Shelbyville, Ill.
BELCO VELVET SEAL—Faucets. The David Bell Co., Inc., Buffalo, N. Y.
BELLWOOD—Hose. Goodall Rubber Co., Philadelphia, Pa.
BELT SURFACER—Belt treatment. F. Raniville Co., Grand Rapids, Mich.
BELTPACO—Rubber transmission belting. New York Belting & Packing Co., Passaic, N. J.
BELTAZ—Belt dressing. American Asphalt Paint Co., Chicago, Ill.
BELTINE—Belt dressing. Jos. C. Paulus & Co., Philadelphia, Pa.
BEMIS—Heater brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
BEN LOCK—Woven brake lining. Russell Manufacturing Co., Middletown, Conn.
BENNETT—Oil cups and covers, emery wheel dressers and cutters. Bay State Stamping Co., Worcester, Mass.
BENSON—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
BERG—Concrete surfacing machines and cleaning tools. The Concrete Surfacing Machinery Co., Cincinnati, Ohio.
BERG—Pliers and chisels. Sandvik Saw & Tool Corp., Minneapolis, Minn.
BERLOY—Steel lockers and shelving bar racks. The Berger Manufacturing Co. (Division of Republic Steel Corp.), Canton, Ohio.
BERNARD—Pliers, nippers and belt punches. The Wm. Schollhorn Co., New Haven, Conn.
BEST GRADE—Leather belting. Detroit Oak Belting Co., Detroit, Mich.
BEST MAIDE—Tool grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
BESTA-MONIA—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
BESTALLIC—Asbestos pump and valve stem packing. Advance Packing & Supply Co., Chicago, Ill.
BESTALLINE—Asbestos sheet packing. Advance Packing & Supply Co., Chicago, Ill.
BESTOIL—Threading oil. Oster-Williams, Cleveland, Ohio.
BETAR BEST—Babbitt metal. The Ohio Metal Co., Columbus, Ohio.
BETHCO—Rail anchors. Bethlehem Steel Co., Bethlehem, Pa.
BETTENDORF—Oil burners. The Micro Corp., Bettendorf, Iowa.
BETTER-BILT—Shovels and spades. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BETTER BUILT—Finished bushings. The Buckeye Brass & Mfg. Co., Cleveland, O.
BEVELRITE—Tool and knife grinders. Norton Pike Co., Pike, N. H.
BIG BEAR—Heavy duty service station vises. The Charles Parker Co., Meriden, Conn.
BIG BULL—Stitched canvas belting. The Hettrick Mfg. Co., Toledo, Ohio.
BIG CHIEF—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
BIG FIST—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
BIG LARRY—Quad trucks. The Service Caster & Truck Co., Albion, Mich.
BIG MIKE—Tri-wheel trucks. The Service Caster & Truck Co., Albion, Mich.
BITHERMAL—Temperature control for furnaces. Harold E. Trent Co., Philadelphia, Pa.
BLACK BULL—Stitched canvas belting. The Hettrick Mfg. Co., Toledo, Ohio.
BLACK CAT—Mops. Sullivan Brush Co., Terre Haute, Ind.
BLACK DEVIL—Twist drills. Arthur Colton Co., Detroit, Mich.
BLACK DIAMOND—Bolts and nuts. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
BLACK DIAMOND—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
BLACK DIAMOND—Files. Nicholson File Co., Providence, R. I.
BLACK DIAMOND—Friction tape. The M. W. Dunton Co., Providence, R. I.
BLACK GIANT—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
BLACK GOLD—Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BLACK LABEL—Tool steels. William Jessop & Sons, Inc., New York, N. Y.
BLACK REXALL—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
BLACK SEAL—Belting, hose and packing. Home Rubber Co., Trenton, N. J.
BLACKFIN—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BLACKHAWK—Punches. Whitney Metal Tool Co., Rockford, Ill.
BLACKRIB—Hose. Electric Hose & Rubber Co., Wilmington, Del.
BLACKSNAKE—Hose. Electric Hose & Rubber Co., Wilmington, Del.

BLACOTE — Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
BLAKE—Combination pipe vises. Prentiss Vise Co., New York, N. Y.
BLAKE KNOWLES — Steam pumps. Worthington Pump and Machinery Corp. Harrison, N. J.
BLANCO—Water softeners. Pacific Chemical Co., Los Angeles, Calif.
BLAXTICK—Belt dressing. Main Belting Co., Philadelphia, Pa.
BLIZZARD—Air coolers. Wright-Austin Co., Detroit, Mich.
BLIZZARD—Lanterns. R. E. Dietz Co., New York, N. Y.
BLOCKER GREGORY—Textile mill receptacles. Fibre Specialty Mfg. Co., Kennett Square, Pa.
BLU-FORGE—Wrenches, nail sets and center punches. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
BLU-MOL — Hack saw blades. Millers Falls Co., Greenfield, Mass.
BLUE BIRD—Tinners' snips and adjustable wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
BLUE BOY—Differential chain hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
BLUE BOY—Steel trailer trucks. Nutting Truck Co., Faribault, Minn.
BLUE CENTER—Wire rope. John A. Roebling's Sons Co., Trenton, N. J.
BLUE DIAMOND—Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BLUE DIAMOND—Twist drills. Whitman and Barnes, Inc., Detroit, Mich.
BLUE END—Hack saws. E. C. Atkins and Co., Indianapolis, Ind.
BLUE GRASS BRAND—Wiping cloths. Louisville Sanitary Wipers Co., Inc., Louisville, Ky.
BLUE HEART—Manila rope. The Hooven & Allison Co., Xenia, Ohio.
BLUE LABEL—Pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
BLUE LINE—Hose. Whitehead Bros. Rubber Co., Trenton, N. J.
BLUE NECK—Polishing leather. Greene, Tweed & Co., New York, N. Y.
BLUE POINT—Wrenches. Snap-On Tools, Inc., Kenosha, Wis.
BLUE RIVER—Shovels and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
BLUE RIBBON—Belt dressings and wire rope lubricants. Jobbers Mfg. Co., Chicago, Ill.
BLUE SPECIAL—House force pump. The Deming Co., Salem, Ohio.
BLUE STAR—Files and rasps. The Cleveland File Co., Cleveland, Ohio.
BLUE STAR—Machine knives. E. C. Atkins and Co., Indianapolis, Ind.
BLUE STONE—Leather belting. W. S. Nott Co., Minneapolis, Minn.
BLUE STREAK—Hand lift trucks. The Yale & Towne Mfg. Co., Philadelphia, Pa.
BLUE TIP—Bronze rods. Mueller Brass Co., Port Huron, Mich.
BLUETEX—Asbestos sheet. Felt Products Mfg. Co., Chicago, Ill.
BOB-O-LINK—Fibre link mats. The Rockwood Mfg. Co., Indianapolis, Ind.
BOICOURT—Double stroke pumps. Midland Mfg. Co., Ft. Worth, Tex.
BOLIVIAN—Water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
BOLL WEEVIL—Pipe tongs. J. H. Williams & Co., New York, N. Y.
BONDARON—Leather belting and loom straps. Charles Bond Co., Philadelphia, Pa.
BONDERITE—Rust proofing. Parker Rust Proof Co., Detroit, Mich.
BONDEX—Cement paint for masonry surfaces only. The Reardon Co., St. Louis, Mo.
BONDEX—Leather belting and loom straps. Charles Bond Co., Philadelphia, Pa.
BONDFLEX—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BONDIT—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BONDTRU—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
BORAX-ETTE—Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
BORITE—Abrasive wheels. Vitrified Wheel Co., Westfield, Mass.
BOROLON—Grinding wheels, rubbing bricks, etc. Abrasive Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
BOSCH—Automatic force feed lubricators. United American Bosch Corp., Springfield, Mass.
BOSS—Belting. Home Rubber Co., Trenton, N. J.
BOSS—Hose couplings. Dixon Valve & Coupling Co., Philadelphia, Pa.
BOSS—Leather aprons. California Tanning Co., St. Louis, Mo.
BOSTON—Electric wire cutters. H. K. Porter, Inc., Everett, Mass.
BOSTONG—Pipe chain wrenches. Walworth Co., New York, N. Y.
BOULET—Micrometer test indicators. Zina Goodell Corp., Salem, Mass.
BOWES—Hose racks. W. D. Allen Mfg. Co., Chicago, Ill.
BOXOCKET—Wrenches. Snap-On Tools, Inc., Kenosha, Wis.
BOXTITE—Wrenches. Stevens, Walden, Inc., Worcester, Mass.
BOYER—Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
BRAD FOOTE—Gears and speed hammers. Foote Gear Works, Inc., Cicero, Ill.
BRAEBURN—Tool steel. Peter A. Frasse & Co., Inc., New York, N. Y.
BRANFORD—Unions, etc. Malleable Iron Fittings Co., Branford, Conn.
BRAPACO—Asbestos joint runner and caulking jute. Eureka Packing Co., and Braiding and Packing Works of America, Inc., Brooklyn, N. Y.
BRASBESTOS—Packing rings. Federal Metallic Packing Co., Wakefield, Mass.
BREEZO—Ventilating fans. Buffalo Forge Co., Buffalo, N. Y.
BRIAR EDGE—Scythes. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
BRICKLAYERS—Friction tape. The Mechanical Rubber Co., Passaic, N. J.
BRIDGE BUILDERS—Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
BRIGGS—Wrenches. Bemis & Call Co., Springfield, Mass.
BRIGHTON—Ash and garbage cans. The Witt Cornice Co., Cincinnati, Ohio.
BRITENOL—Mill white paint. Goheen Corporation of New Jersey, Newark, N. J.
BROBAS—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
BRONCHO—Suction hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
BRONCO—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
BROOKBEST—Flax packing. Eureka Packing Co., and Braiding and Packing Works of America, Inc., Brooklyn, N. Y.
BROOKLYN-TROY—Flint paper. Behr-Manning Corp., Troy, N. Y.
BROOKTAN BRAND—Round belting. J. H. Hemmerdinger & Son, Brooklyn, N. Y.
BROWNIE—Boiler signal for low water. Wright-Austin Co., Detroit, Mich.
BROWNIE—Lubricators. Essex Brass Corp., Detroit, Mich.
BROWNING—Paper pulleys, fibre frictions and offset keystock. Ohio Valley Pulley Works, Inc., Maysville, Ky.
BRUNOTTE—Sewage screens. Link-Belt Co., Chicago, Ill.
BRUTE—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
BUCK HORN—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
BUCKEYE—Air hose. New York Belting & Packing Co., Passaic, N. J.
BUCKEYE—Bolts. The Lamson & Sessions Co., Cleveland, Ohio.
BUCKEYE—Lawn mowers, pumps, etc. Mast, Foos & Co., Springfield, Mass.
BUCKEYE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BUCKEYE—Tool handles. Hartwell Brothers, Memphis, Tenn.
BUCKEYE—Transmission belting, hose and splicing tape. The Mechanical Rubber Co., Passaic, N. J.
BUCKEYE—Sand blast, paint sprayers, oil burners, etc. The Macleod Co., Cincinnati, Ohio.
BUCKEYE—Steel and contractors' wheelbarrows. The Toledo Wheelbarrow Co., Toledo, Ohio.
BUCKEYE — Weldless wire chain. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
BUCKSKIN—Hose. Goodall Rubber Co., Philadelphia, Pa.
BUCO—Metal cleaners, detergents, etc. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
BUFCO—Forges. Buffalo Forge Co., Buffalo, N. Y.
BUFFALO—Combination tinners' snips. Niagara Machine & Tool Works, Buffalo, N. Y.
BUFFALO—Elevator buckets. Link-Belt Co., Chicago, Ill.
BUFFALO—Polishing leather. Greene, Tweed & Co., New York, N. Y.
BUFFALO BALL—Rubber patches. R. Hoffeld & Co., Buffalo, N. Y.
BULL—Drag scrapers. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
BULL DOG — Brooms. Midwest Broom Manufacturing Co., Circleville, Ohio.
BULL DOG—Car movers. Safety Wrench & Appliance Co., Worcester, Mass.
BULL-DOG—Casters. The Service Caster & Truck Co., Albion, Mich.
BULL DOG—Clamps, bench vises and tool grinders. Western Hdwe. Mfg. Co., Milwaukee, Wis.
BULL DOG—Hose, belting, friction tape, welding tubing and rubber matting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
BULL DOG — Hose coupling and hose mender. W. D. Allen Mfg. Co., Chicago.
BULL DOG—Leather aprons. The Chicago Rawhide Mfg. Co., Chicago, Ill.
BULL DOG—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
BULL DOG—Shaft couplings. Huron Industries, Inc., Alpena, Mich.
BULL DOG—Wire rope clips. The Lamson & Sessions Co., Cleveland, Ohio.
BULL DOG—Wrenches. J. H. Williams & Co., New York, N. Y.
BULL-PUP—Die stocks. Oster-Williams, Cleveland, Ohio.
BULL TERRIER—Wrenches. J. H. Williams & Co., New York, N. Y.
BULL'S HEAD—Leather belting. Chas. A. Schieren Co., New York, N. Y.
BULLDOG — Coil and sash chain. The Chain Products Co., Cleveland, Ohio.
BULLDOG — Cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
BULLDOG—Solder. Marshall Metal Co., Los Angeles, Calif.
BULLDOZER—Shallow and deep well power pumps. The F. E. Myers & Bros. Co., Ashland, Ohio.
BULLFROG—Wheelbarrows, scrapers and concrete carts. Toledo Wheelbarrow Co., Toledo, Ohio.
BULLSEYE—Locomotive lubricators. Detroit Lubricator Co., Detroit, Mich.
BUNKER HILL BRAND—Lead products and zinc. Northwest Lead Co., Seattle, Wash.
BURMALINE—Transmission belting. Burrell Belting Co., Chicago, Ill.
BURNHAM—Pumps. Union Steam Pump Co., Battle Creek, Mich.
BURNISHINE—Metal polish, etc. J. C. Paul & Co., Chicago, Ill.
BURRELL—Gas masks, indicators, etc. Mine Safety Appliances Co., Pittsburgh.
BURT SOLAR ATTACHMENT—Transits. W. & L. E. Gurley, Troy, N. Y.
BUSS—Electric fuses. Bussmann Mfg. Co., St. Louis, Mo.
BUSS SUPER-LAG FUSES — Renewable fuses. Bussmann Mfg. Co., St. Louis, Mo.
BUSSLIGHT—Portable adjustable electric lamps. Bussmann Mfg. Co., St. Louis, Mo.
BUSY—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
BUTTERFLY—Plug drills. Ingersoll-Rand Co, New York, N. Y.
BUZZER — Industrial gas equipment. Charles A. Hones, Inc., Baldwin, N. Y.

C

C. B. G.—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
C C QUALITY—Dredge and sling chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
C.E.S. CO.—Goggles. Chicago Eye Shield Co., Chicago, Ill.
C-H—Electric motor controllers, valve control and electric heaters. Cutler-Hammer, Inc., Milwaukee, Wis.
C&H—Faucets, etc. Cordley & Hayes, New York, N. Y.
C. & L. QUALITY LINE—Torches and fire pots. Clayton & Lambert Mfg. Co., Detroit, Mich.
C-H-L—Round belting. Geo. Rahmann & Co., New York, N. Y.
C-M—Electric wire rope hoists and overhead cranes. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
C.M.C.—Hoists. Construction Machinery Co, Waterloo, Iowa.
C.N.I.—Chrome nickel iron pipe. Walworth Co., New York, N. Y.
C. O. OBERG BRAND — Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
C P—Pneumatic and electric tools, compressors, etc. Chicago Pneumatic Tool Co., New York, N. Y.
CABLE LUBRICATOR—Wire cable dressing. F. Raniville Co., Grand Rapids, Mich.
CABLE PULLING — Underground cable pulling compound. Adam Cook's Sons, Inc., Linden, N. J.
CACTUS—Door mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
CAD—Bolts, nuts, washers, clamps, etc. Standard Shop Equipment Co., Philadelphia, Pa.
CADILLAC (CLEMENTS-CADILLAC)—Portable electric blowers, blow torches and blast blowers. Clements Mfg. Co., Chicago, Ill.
CADOL—Liquid grinding compound. D. A. Stuart Oil Co., Chicago, Ill.
CALDWELL—Hose straps and pliers. W. D. Allen Mfg. Co., Chicago, Ill.
CALDWELL—Spiral conveyors, rotor lifts, car spotters, variable speed stoker drives, underfeed automatic stokers, speed reducer stock drives for conveyors and elevators, elevator buckets, bolts, boots and casings, automatic grain shovels, etc. Link-Belt Co., Chicago, Ill.

UMI

CALIBESTOS — Asbestos metallic sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
CALIFORNIA—Sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
CALLAHAN — Shut-off nozzles. Elkhart Brass Mfg. Co., Elkhart, Ind.
CALYX—Core drills. Ingersoll-Rand Co., New York, N. Y.
CAMBRIA—Wire fence. Bethlehem Steel Co., Bethlehem, Pa.
CAMERON—Pumps. Ingersoll-Rand Co., New York, N. Y.
CAMPBELL—Cotter pins. American Chain Co., Inc., Bridgeport, Conn.
CANDENS—Hot surface paint. Tnemec Co., Kansas City, Mo.
CANNON BALL—Door hangers. Starline, Inc., Harvard, Ill.
CAN'T BREAK 'EM—Tool handles. O. P. Link Handle Co., Salem, Ind.
CAN'T SPLIT—File and soldering copper handles and tinners' wallets. Hy-Tools, Inc., Buffalo, N. Y.
CANTILEVER — Pipe chain wrenches. Heller Bros. Co., Newark, N. J.
CANTOL—Belt wax, etc. E. C Atkins and Co., Indianapolis, Ind.
CANVAS BACK—Loom straps. E. H. Jacobs Manufacturing Co., Danielson, Conn.
CAP—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
CAPITAL—Brooms and brushes. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
CAPITOL—Rubber coats. Goodall Rubber Co., Philadelphia, Pa.
CARBEX—Refractories. McLeod & Henry Co., Troy, N. Y.
CARBIC — Floodlights. The Linde Air Products Co., New York, N. Y.
CARBICON-DURITE—Sand paper, cloth and combination. Behr-Manning Corporation, Troy, N. Y.
CARBO-LATHE — Manufacturing lathe. The Porter-Cable Hutchinson Corp., Syracuse, N. Y.
CARBO MAGNETO — Grinding wheels, knife sharpeners, etc. Goodrich Grinding Wheel Co., Chicago, Ill.
CARBON—Conveyor belting and hose. New York Belting & Packing Co., Passaic, N. J.
CARBONITE — Abrasive grains. General Abrasive Co., Inc., Niagara Falls, N. Y.
CARBONIZING COATING—Iron and steel paint. Goheen Corporation of New Jersey, Newark, N. J.
CARBORITE — Silicon carbide wheels. Vitrified Wheel Co., Westfield, Mass.
CARDINAL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
CAREYSTONE — Asbestos shingles and sheathings. The Philip Carey Co., Lockland, Cincinnati, Ohio.
CARLSON—Pliers. The Noble & Westbrook Mfg. Co., East Hartford, Conn.
CARTON—Stitched canvas belting and belt dressing. The American Belting Companies, Baltimore, Md.
CAREAK—Stitched canvas belting. The American Belting Companies, Baltimore, Md.
CASCO—Leather belting. Chas. A. Schieren Co., New York, N. Y.
CASE-HARDO—Case hardening compound. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
CASLER—Offset boring head. Westcott Chuck Co., Oneida, N. Y.
CAST-REFRACT — Castable refractory. Quigley Co., New York, N. Y.
CASTOROL—Belt dressing. A. W. Chesterton Co., Boston, Mass.
CAT—Forged steel elbows and fittings. Central Forging Co., Catawissa, Pa.
CATARACT—Hose. Goodall Rubber Co., Philadelphia, Pa.
CATAWISSA—Forged steel pipe unions. The Central Forging Co., Catawissa, Pa.
CATLIN—Keyseaters. Chattanooga Machinery Co., Chattanooga, Tenn.
CAUSUL—Metal gate valves. The Lunkenheimer Co., Cincinnati, Ohio.
CEE TEE CO.—Pliers. Crescent Tool Co., Jamestown, N. Y.
CELITE—Mineral filters. Johns-Manville Sales Corp., New York, N. Y.
CELORON—Gears, gear blanks and valve discs. Continental-Diamond Fibre Co., Newark, Del.
CENTAUR—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
CENTRAL—Alloy steel. Peter A. Frasse & Co., Inc., New York, N. Y.
CENTRIFUGAL—Leather belting. McLean Manufacturing Corp., New York, N. Y.
CENTRIFUGAL—Vibrating screens. Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
CENTRIPAC — Packings and gaskets. Johns-Manville Sales Corp., New York.
CEPECO—Chain. The Chain Products Co., Cleveland, Ohio.
CESCO—Industrial goggles. Chicago Eye Shield Co., Chicago, Ill.
CHALLENGE—Elevator belting. The Republic Rubber Co., Youngstown, Ohio.
CHALLENGE — Force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
CHALLENGE—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
CHALLENGE — Packing. Home Rubber Co., Trenton, N. J.
CHALLENGE BRAND — Pipe nipples. Frick-Reid Supply Corp., N. S. Pittsburgh, Pa.
CHAMPION — Automatic alcohol blow torches. B. Lenk Mfg. Co., Newton Lower Falls, Mass.
CHAMPION — Chain wrenches Greene, Tweed & Co., New York, N. Y.
CHAMPION—Hydraulic water pumps. The Bishop & Babcock Sales Co., Cleveland, O.
CHAMPION—Metal polishes. Matchless Metal Polish Co., Chicago, Ill.
CHAMPION—Spray nozzle. W. D. Allen Mfg Co., Chicago, Ill.
CHAMPION—Oil cups The Lunkenheimer Co., Cincinnati, Ohio.
CHAMPION — Post hole diggers. Iwan Brothers, South Bend, Ind.
CHAMPION—Torches. The Toledo Pressed Steel Co., Toledo, Ohio.
CHAMPION HOLDERS—Steel stamp holders. Jas. H. Matthews & Co., Pittsburgh.
CHAMPION ROLLER DIE—Saw swages. Edwin G. Shortridge & Co., Kokomo, Ind.
CHANNELLOCK — Champion DeArment Tool Co., Meadville, Pa.
CHAPMAN—Ball bearings. Transmission Ball Bearing Co., Inc., Buffalo, N. Y.
CHARM—Wrenches. Arthur Priddle, San Francisco, Calif.
CHARTER OAK—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
CHATTERTON — Insulating compounds. McGill Manufacturing Co., Valparaiso, Ind.
CHEBECO—Stitched canvas belting. Chesapeake Belting Co., Baltimore, Md.
CHENEY—Hammers. Prentiss Vise Co., New York, N. Y.
CHERRY HEAT — Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
CHEX—Wall sealer. The Reardon Co., St. Louis, Mo.
CHICAGO — Anchoring devices. Chicago Expansion Bolt Co., Chicago, Ill.
CHICAGO—Belt hooks. Wm. E. Pratt Mfg. Co., Joliet, Ill.
CHICAGO — Cup and flange leathers, gears and pinions, blanks, mallets, hammers and mauls and leather belt cement. The Chicago Rawhide Co., Chicago, Ill.
CHICAGO—Injectors, ejectors, lubricators and water gauges. Ohio Injector Co., Wadsworth, Ohio.
CHICAGO—Rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
CHICAGO—Wire grips. M. Klein & Sons, Chicago, Ill.
CHICAGO GOOSE NECK—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
CHICAGO KNOWLES — Steam pumps. Furness Bros. Co., Chicago, Ill.
CHIEF — Socket wrenches. Blackhawk Mfg. Co., Milwaukee, Wis.
CHILDS—Fire extinguishers and chemical engines. American-LaFrance & Foamite Corp., Elmira, N. Y.
CHIP CHASER—Die stocks. Oster-Williams, Cleveland, Ohio.
CHOICE—Leather belting. O'Meara Belting Co., Omaha, Neb.
CHROMAL—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
CHROME — Leather packing. Michigan Leather Packings Co., Inc., Detroit, Mich.
CHROMIX—Refractory cement. Quigley Co., Inc., New York, N. Y.
CHROMO—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
CID—Shallow and deep well water system pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
CINCH—Expansion bolts and anchors. National Lead Co., New York, N. Y.
CINCH STEEL CEMENT—Welding compound. The W. R. Chapin Co., Indianapolis, Ind.
CINCH-WELD — Machine knives. E. C. Atkins and Co., Indianapolis, Ind.
CINCINNATI TRUSS—Step ladder. The Rich Pump and Ladder Co., Cincinnati, O.
CINCINNATUS—Transmission belting and hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
CINO—Iron body gate valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
CIRCLE A—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
CLARK'S—Rope fire escape. Rope Fire Escape Co., Philadelphia, Pa.
CLE-FORGE—Drills. The Cleveland Twist Drill Co., Cleveland, Ohio.
CLEAN WATER—Intake screens. Link-Belt Co., Chicago, Ill.
CLEANCUT GUIDE—Hand metal cutting machine. Jos. C. Paulus & Co., Philadelphia, Pa.
CLEANSER & STUFFER—Belt dressing and cleaner. F. Raniville Co., Grand Rapids, Mich.
CLEANWELL — Welding and brazing fluxes. K-G Welding and Cutting Co., Inc., New York, N. Y.
CLEO—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
CLEREMONT—Marine oakum. The Hooven & Allison Co., Xenia, Ohio.
CLEVELAND — Carriage and machine bolts. The Lamson & Sessions Co., Cleveland, Ohio.
CLEVELAND—Conveyor belting, suction hose and compressed asbestos sheet packing. The Mechanical Rubber Co., Passaic, N. J.
CLEVELAND—Friction clutches. Western Engineering & Mfg. Co., Chicago, Ill.
CLEVELAND — Pump chain and pump buckets. The Chain Products Co., Cleveland, Ohio.
CLEVELAND—Tackle blocks. The Upson-Walton Co., Cleveland, Ohio.
CLEVELAND—Tacks and nails. The Bishop & Babcock Sales Co., Cleveland, Ohio.
CLEVELAND FLAMING TORCHES—Road torches. Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
CLEVELAND TYPE—Line shaft bearings. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
CLEVER-CUTTER—Electric butcher saw. Wells Manufacturing Corp., Three Rivers, Mich.
CLIPTON—Conveyor belting and hose. New York Belting & Packing Co., Passaic, N. J.
CLIMAX—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
CLIMAX—Copper seat unions. Thos. Devlin Mfg. Co., Burlington, N. J.
CLIMAX — Core wire straighteners. Worthington Pump and Machinery Corp., Harrison, N. J.
CLIMAX—Expansion shields. The Brohard Co., Philadelphia, Pa.
CLIMAX—Grease cups. American Injector Co., Detroit, Mich.
CLIMAX—High pressure pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
CLIMAX—Scoop trucks. Lansing Co., Lansing, Mich.
CLIMAX—Solid cotton belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.
CLIMAX—Steel belt lacing.—Manufacturers' Belt Hook Co., Chicago, Ill.
CLIMAX—Welding compound. Cortland Welding Compound Co., Cortland, N. Y.
CLIMAX ALLOY—Staybolts, etc. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
CLINGSTONE—Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
CLINGTITE—Leather belting. Geo. Rahmann & Co., New York, N. Y.
CLINTON—Reinforcing fabric and wire lath. Wickwire Spencer Steel Co., New York, N. Y.
CLIPPER — Belting, hose, packing and matting. Diamond Mechanical Goods Division of The B. F. Goodrich Rubber Co., Akron, Ohio.
CLOSED BACK—Shovels. The Wood Shovel and Tool Co., Piqua, Ohio.
CLOTHFLEX WHEEL—Polishing wheels. Divine Brothers Co., Utica, N. Y.
COAL BLUFF—Coal shovels and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
COASTER — Apparatus sirens. Federal Electric Co., Chicago, Ill.
COBBS—Rod packing. New York Belting & Packing Co., Passaic, N. J.
COCHECO—Leather belting and rawhide lace leather. I. B. Williams & Sons, Dover, N. H.
COES—Wrenches. Bemis & Call Co., Springfield, Mass.
COGASA—Gaskets and rod packings. Rhopac Products Corp., Chicago, Ill.
COIL—Brush and scraper combined. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
COIL KNOT—Wire sections and wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
COIN—Bronze grease cups. The Wm. Powell Co., Cincinnati, Ohio.
COLARCHROME—Rouges for chromium plate. E. Reed Burns Mfg. Corp., Brooklyn, N. Y.
COLE—Grip nuts. The Robinson Tool Works, Inc., Waterbury, Conn.
COLLINS—Flue expanders. Ajax Manufacturing Co., Pittsburgh, Pa.
COLLS—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
COLONEL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
COLONIAL—Chopping axes. Man Edge Tool Co., Lewistown, Pa.

COLONIAL OAK—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
COLORADO—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
COLOR-BESTOS—Mill white, factory interior paint. Technical Products Co., Pittsburgh, Pa.
COLORTOP—Plug fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
COLT'S—Woodworking clamps. Batavia Clamp Co., Inc., Batavia, N. Y.
COLUMBIA—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
COLVIN—Rawhide hammers. Greene, Tweed & Co., New York, N. Y.
COMBER-WATERPROOF—Leather belting. Geo. Rahmann & Co., New York, N. Y.
COMBI—Combination drill and grinder. Wodack Electric Tool Corp., Chicago, Ill.
COMBINATION—Sectional piston packing. A. W. Chesterton Co., Boston, Mass.
COMBINATION STEAM TRAPS—Wright-Austin Co., Detroit, Mich.
COMBINATION ANCHOR—Leather belting. Jos. C. Paulus & Co., Philadelphia, Pa.
COMET—Garden hose reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
COMMANDER—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
COMMERCIAL—Ball bearings. Schatz Mfg. Co., Poughkeepsie, N. Y.
COMMERCIAL—Phosphor bronze bars. Buckeye Brass & Mfg. Co., Cleveland, O.
COMPASS—Cord belting. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
COMPENSATED BELT — Transmission belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
COMPETITION—Chicago Expansion Bolt Co., Chicago, Ill.
COMPETITOR—Friction clutches. Kinney Manufacturing Co., Boston, Mass.
COMPO—Self-lubricating bearings. Bound Brook Oilless Bearing Co., Bound Brook, N. J.
COMPOSITE—Rubber hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
COMPOUND LEVER—Bench shears, tree trimmers, etc. Bartlett Manufacturing Co., Detroit, Mich.
COMPRESS WHEEL (THE)—Polishing wheels. Divine Brothers Co., Utica, N. Y.
COMPRESSOR—Hose. Goodall Rubber Co., Philadelphia, Pa.
CONCAVE—Woodworking cutters. S. R. M. Orum, Inc., Philadelphia, Pa.
CONCORD—Leather belting. Page Belting Co., Concord, N. H.
CONCRETE BUSHER — Pneumatic tool. The Dallett Co., Philadelphia, Pa.
CONCREWALTUM—Paint. Goheen Corporation of New Jersey, Newark, N. J.
CONDEX—Underground cable. Simplex Wire & Cable Co., Boston, Mass.
CONDOR—Rubber belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
CONDOR—Tool handles. American Handle Co., Jonesboro, Ark.
CONGO—Manila rope. John Rauschenberger Co., Milwaukee, Wis.
CONGO—Steam hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
CONGO—Suction hose. New York Belting & Packing Co., Passaic, N. J.
CONGRESS—Packing. Consolidated Packing & Supply Co., New York, N. Y.
CONIFLO—Pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
CONOVALVE—Automatic control valves. The Fisher Governor Co., Marshalltown, Iowa.
CONSERVO—Elevator belting and hose. Hewitt Rubber Corp., Buffalo, N. Y.
CONSOLCO — Leather cups and asbestos packing. Consolidated Packing & Supply Co., New York, N. Y.
CONSOLIDATED AMERICAN — Safety and relief valves. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
CONSTANT LEVEL—Oilers. Speedway Mfg. Co., Cicero, Ill.
CONSTRUCTOR—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
CONTRACTOR—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
CONTRACTORS—Suction hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
CONVEYOR WEIGHTOMETER — Conveyor scales. Merrick Scale Mfg. Co., Passaic, N. J.
CONWAX—Canvas belting. Gandy Belting Co., Grand Rapids, Mich.
COOKSON—Steam and oil separators and steam traps. The D. T. Williams Valve Co., Cincinnati, Ohio.
COOLING CUTTING — Oil. Armstrong Mfg. Co., Bridgeport, Conn.
COOLKUTTER—Tool grinders. Western Hdwe. Mfg. Co., Milwaukee, Wis.
COON—Pipe joint cement Hinds and Coon Co., Boston, Mass.
COPALOY—Babbitt. Michigan Smelting & Refining Co., Detroit, Mich.
COPPER HARD—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
COPPER KING—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
COPPER QUEEN — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
COPPERINE C — Babbitt metal. Erie White Metal Co., Erie, Pa.
COPPERLUM—Electric glue pots. Chas. E. Francis Co., Rushville, Ind.
COPPEROID—Steel sheets. Youngstown Sheet and Tube Co., Youngstown, Ohio.
COPPERSTEEL—Bins. R. H. Beaumont Co., Philadelphia, Pa.
COP-R-LOY—Metalware, wire and wire products. Wheeling Corrugating Co., Wheeling, W. Va.
CORBESTOS—Asbestos sheet with metal core. Victor Mfg. & Gasket Co., Chicago, Ill.
CORDEAU BICKFORD—Detonating fuse. Hercules Powder Co., Inc., Wilmington, Del.
COREX—Silicon carbide grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
CORKER—Hog beater belt. The Mechanical Rubber Co., Passaic, N. J.
CORKLASTIC—Cork gaskets. Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
CORLISS VALVE—Steam traps. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
COROCO—Rope and twine. Columbian Rope Co., Auburn, N. Y.
CORPORATION STYLE—Push Brooms. The Osborn Manufacturing Co., Cleveland, Ohio.
CORRY—Check valves. Trill Indicator Co., Corry, Pa.
CORSICAN—Hose. Goodall Rubber Co., Philadelphia, Pa.
COUNCIL—Hose and packings. Consolidated Packing & Supply Co., New York, N. Y.
COVOCAST—Manholes and catch basins. Covington Machine Co., Inc., Covington, Va.
CRACKPROOF—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
CRAFTSMAN—Woodworking machinery. Up-To-Date Machine Works, Inc., Chicago, Ill.
CRESCENT—Bronze globe valves. The Wm. Powell Co., Cincinnati, Ohio.
CRESCENT—Drinking fountain equipment. Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
CRESCENT—Emery wheel dresser cutter. Curtin-Hebert Co., Inc., Gloversville, N. Y.
CRESCENT—Gauge cocks. Wright-Austin Co., Detroit, Mich.
CRESCENT—Grinders and polishing machines. Cutter Machine Co., St. Louis, Mo.
CRESCENT—Hose, mats and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
CRESCENT—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
CRESCENT—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CRESCENT—Try-cocks. Wright-Austin Co., Detroit, Mich.
CRESCENT—Welding and tempering compound. Anti-Borax Compound Co., Fort Wayne, Ind.
CRESCENT—Wire rope. American Cable Co., Inc., Wilkes Barre, Pa.
CRESCENT GROUND — Cross-cut saws. Simonds Saw and Steel Co., Fitchburg, Mass.
CRESTO—Kalsomine. The Reardon Co., St. Louis, Mo.
CRICKET—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CRISS-CROSS — Boiler tube cleaner. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
CROCCITE—Rod packing. New York Belting & Packing Co., Passaic, N. J.
CROSBY—Wire rope clips. American Hoist & Derrick Co., St. Paul, Minn.
CROSS—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
CROTON—Leather belting and cement. Baldwin Belting & Leather Co., Inc., New York, N. Y.
CROW—Dry pipe tapping machines. Hays Manufacturing Co., Erie, Pa.
CROWN—Dredge chain. The McKay Co., Pittsburgh, Pa.
CROWN—Leather belting. Page Belting Co., Concord, N. H.
CROWN — Paint spray equipment, etc. Simplex Spray Equipment Co., Chicago, Ill.
CROWN—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
CRUNDUMSAND — Granular refractory. Keystone Refractories Co., New York, N. Y.
CRUSHER—Babbitt. Gardiner Metal Co., Chicago, Ill.
CRYSTAL BAY—Emery cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
CRYSTAL FALLS—Wiping cloths and waste. Cook & Riley, Inc., Chicago, Ill.
CRYSTAL GARNET — Garnet paper and cloth. H. H. Barton & Son Co., Troy.
CRYSTOLON—Grinding wheels. Norton Co., Worcester, Mass.
CUB—Boiler scaler. The Dallett Co., Philadelphia, Pa.
CUB—Portable loaders. Link-Belt Co., Chicago, Ill.
CUB—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
CUMBERLAND—Shovels. American Manufacturing Co., Chattanooga, Tenn.
CUMMINGS — Portable forges. Furness Bros. Co., Chicago, Ill.
CUPID—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
CUPLEX STEEL HORSES—Steel horses. Consolidated Iron-Steel Mfg. Co., Cleveland, Ohio.
CURTIS—Universal joints. Boston Gear Works, Inc., North Quincy, Mass.
CURVEX—Milling cutters. Pratt & Whitney Co., Hartford, Conn.
CYCLONE—Exhaust heads. Wright-Austin Co., Detroit, Mich.
CYCLONE — Hand and electric chain hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
CYCLONE — Lubricators. Essex Brass Corp., Detroit, Mich.
CYCLOPS—Transmission belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
CYLINDER—Leather belting. Graton & Knight Co., Worcester, Mass.
CYLINDO — Marking pots. Binney & Smith Co., New York, N. Y.

D

D-E—Machine knives and shear blades. Detroit Edge Tool Works, Detroit, Mich.
DH-I—Ball bearings. Dodge Manufacturing Corp., Mishawaka, Ind.
D-LITE—Lanterns. R. E. Dietz Co., New York, N. Y.
D M T—Nail hammers. David Maydole Tool Corp., Norwich, N. Y.
DS—Type take-ups. Link-Belt Co., Chicago, Ill.
D-PORTABLE—Suction hose. New York Belting & Packing Co., Passaic, N. J.
D-V—V-belt drives and motorized variable speed transmissions. Dodge Manufacturing Corp., Mishawaka, Ind.
DAGGETT — Loose pulleys, friction clutches and hanger bearings. Chicago Pulley & Shafting Co., Chicago, Ill.
DAHLIA—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DAISY — Gas tapping machines. Hays Manufacturing Co., Erie, Pa.
DAISY—Lock grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DAKOTA—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DALBO—Hose couplings. The Dallett Co., Philadelphia, Pa.
DALLOYL—Pneumatic tool oil. The Dallett Co., Philadelphia, Pa.
DALWELD—Detachable cable connectors. The Dallett Co., Philadelphia, Pa.
DANDY—Automatic compression grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DANDY—Box scrapers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
DANDY—Oiler assortments. Eagle Manufacturing Co., Wellsburgh, W. Va.
DANDY—Sand suction hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
DANIEL BOONE—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
DAR-A-LOY—Hard bronze metal. Darling Valve & Mfg. Co., Williamsport, Pa.
DARB—Geared and plain trolleys. Ford Chain Block Co., Philadelphia, Pa.
DARCOVA—Pump valve cups. Darling Valve & Mfg. Co., Williamsport, Pa.
DARVAL — Semi-steel metal. Darling Valve & Mfg. Co., Williamsport, Pa.
DASCO—Quenching and tempering oils. D. A. Stuart Oil Co., Chicago, Ill.
DAVENPORT—Oil engines. The Micro Corp., Bettendorf, Iowa.
DAY-STEEL PULLEYS—Single and multiple pressed steel and groove pulleys. The Dayton Rubber Manufacturing Co., Dayton, Ohio.
DAYTON COG-BELT—V-belts and drives. The Dayton Rubber Manufacturing Co., Dayton, Ohio.
DE LUXE—Fire hose cabinets. Wirt & Knox Mfg. Co., Philadelphia, Pa.
DEAD SET—Log rolls. Rodney Hunt Machine Co., Orange, Mass.
DEAN—Mechanical boiler tube cleaner. The Wm. B. Pierce Co., Buffalo, N. Y.
DEANE — Power pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
DEEPWELL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.

UMI

DEFENDER — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
DEFIANCE — Belts, hose, packing, mats, valves and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DEGRACO—Paints. Detroit Graphite Co., Detroit, Mich.
DELAWARE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
DELHI—Hose, belting, packing, matting and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DELTA—Cranes, trolleys, etc. Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
DELTA—Hose. New York Belting & Packing Co., Passaic, N. J.
DELUGE — Suction and bilge pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
DELVA—Water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
DEPENDABLE—Belting and leather products. Himmelein & Bailey, Inc., Camden, N. J.
DEPENDABLE—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DEPENDABLE—Tool handles. O. P. Link Handle Co., Salem, Ind.
DERBY—Plain steel grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DESMOND—Injectors and ejectors. Desmond-Stephan Mfg. Co., Urbana, Ohio.
DETERGINE—Detergent. Duryea Manufacturing Co., Bayonne, N. J.
DETROIT—Return trap. Nason Manufacturing Co., New York, N. Y.
DEXTER—Heat valve. The Swartwout Co., Cleveland, Ohio.
DEXTRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
DI-BILT—Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
DI-CO—Rotary driller's hose and mats. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DIABLO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
DIAMO—CARBO—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
DIAMOND—Cast brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIAMOND—Crushed steel abrasive. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
DIAMOND—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
DIAMOND—Expansion bolts, etc. Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
DIAMOND — Fibre receptacles, sheets, rods, tubes, washers, gears, etc. Continental-Diamond Fibre Co., Newark, Del.
DIAMOND—Picker loops. E. H. Jacobs Manufacturing Co., Danielson, Conn.
DIAMOND A—Brass unions. Rhode Island Fittings Co., Hillsgrove, R. I.
DIAMOND D — Safety disc friction clutches. Dodge Manufacturing Corp., Mishawaka, Ind.
DIAMOND DISC—Respirator masks for dust protection. Hygeia Respirator Co., New York, N. Y.
DIAMOND FIBRE—Boxes, cans, trucks, washers, etc. Continental-Diamond Fibre Co., Newark, Del.
DIAMOND G—Bronze bushings. E. A. Williams & Son, Inc., Jersey City, N. J.
DIAMOND JO — High temperature cements. A. P. Green Fire Brick Co., Mexico, Mo.
DIAMOND N—Loading chain, etc. Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
DIANA—Stamped brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DICKBELT — Transmission, conveying and elevating belting. R. & J. Dick Co., Inc., Passaic, N. J.
DICKROPE—V-belt drives. R. & J. Dick Co., Inc., Passaic, N. J.
DICKVALVES—Balata pump valves. R. & J. Dick Co., Inc., Passaic, N. J.
DIESEL MARINE—Babbitt. United American Metals Corp., Brooklyn, N. Y.
DIMO-GRIT — Grinding wheels. Luther Grinder & Tool Co., Milwaukee, Wis.
DIPLOMA—Automatic grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIRUBCO—Belts and hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
DISC CENTER—Wire sections and wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
DISK—Friction clutch. Link-Belt Co., Chicago, Ill.
DISPLAYRITE—Oil carrier sets. Products Manufacturing Co., Milwaukee, Wis.
DIVIDE — Separators. Direct Separator Co., Inc., Syracuse, N. Y.
DIXIE—Automatic grease cups and lawn sprinklers. W. D. Allen Mfg Co, Chicago, Ill.
DIXIE — Leather belting. Chas. A. Schieren Co., New York, N. Y.
DIXIE—Packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
DIXIE—Stamped brass grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DIXIE — Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
DO-ALL—Combination drill, hammer and grinder. Wodack Electric Tool Corp., Chicago, Ill.
DOAN—Back fillers. The General Wheelbarrow Co., Cleveland, Ohio.
DOEHLER-BOSTON—Gears. Boston Gear Works, Inc., North Quincy, Mass.
DOELCAM—Sand blast, paint sprayers, oil burners, etc. The Macleod Co., Cincinnati, Ohio.
DOLLAR—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
DOLPHIN—Leather belting and cup leathers. H. N. Cook Belting Co., San Francisco, Calif.
DOMESTIC MAID—Mops. Sullivan Brush Co., Terre Haute, Ind.
DOMINATOR—Hose, belting and packing. Rhopac Products Corp., Chicago, Ill.
DOMINION — Hose and asbestos sheet packing. The Darcoid Co., Inc., New York, N. Y.
DOMINO—Crank pin grease cups. The D. T. Williams Valve Co., Cincinnati, O.
DOMINO—Hose and rod packing. The Darcoid Co., Inc., New York, N. Y.
DON'T FEAR—Smoke respirators. Pulmosan Safety Equipment Corp., Brooklyn, N. Y.
DOUBLE CROSS—Transmission belting. The Republic Rubber Co., Youngstown, Ohio.
DOUBLECUT—Lintersaw gummer files. The A. A. Wood & Sons Co., Atlanta, Ga.
DOUBLE DIAMOND—Hose. New York Belting & Packing Co., Passaic, N. J.
DOUBLE-DUTY—Sprocket wheels. Link-Belt Co., Chicago, Ill.
DOUBLEFLEX—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
DOUBLE GRIP — Belt dressing and cement. Jerry Bros. Belting Co., Richmond, Va.
DOUBLE GRIP—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
DOUBLE HEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
DOUBLE JAW—Chucks and attachments. Procunier Safety Chuck Co., Chicago, Ill.
DOUBLE NEEDLE — Fire pots, blow torches, etc. Clayton & Lambert Mfg. Co., Detroit, Mich.
DRAGON—Belting and hose. New York Belting & Packing Co., Passaic, N. J.
DRAGON—Rubber and friction tapes. The Okonite Co., Passaic, N. J.
DRAIN-DRI—Pumps. Yeomans Brothers Co., Chicago, Ill.
DRAWSOL—Deep drawing compound. D. A. Stuart Oil Co., Chicago, Ill.
DREADNAUGHT—Anti-skid chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
DREADNAUGHT—Hose, belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
DREADNAUGHT—Blow torches and furnaces. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
DREADNAUGHT — Trucks. Fibre Specialty Mfg. Co., Kennett Square, Pa.
DREDNAUT—Wire rope, clips and sockets. The Upson-Walton Co., Cleveland, Ohio.
DREW—Braided wire rope slings. Macwhyte Co., Kenosha, Wis.
DRILL-INDEX—Case for drills. Huot Mfg. Co., St. Paul, Minn.
DRIVER—Flexible shaft coupling, shaft hangers, pulleys, saws, lathes and grinding, buffing, drilling, woodworking and flexible shaft machines. Walker-Turner Co., Inc., Plainfield, N. J.
DRONANCE—Brass and bronze bushings. Prier Brass Mfg. Co., Kansas City, Mo.
DRY-PAC — Insulation for underground steam lines. Ric-Wil Co., Cleveland, O.
DU-UNIT BUILT—Pressure pumps. Novo Engine Co., Lansing, Mich.
DUCHESS—Automatic compression grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DUCT-TITE—Asphalt cement. Presstite Engineering Co., St. Louis, Mo.
DUFACE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
DUKE—Grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DUKE—Lubricators. Essex Brass Corp., Detroit, Mich.
DUNDEE—C. R. L. Mill hose and sheet packings. New York Belting & Packing Co., Passaic, N. J.
DUNN—Trench braces. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
DUO-HEX-BOX—Box wrenches. J. H. Williams & Co., New York, N. Y.
DUO-TAN — Leather belting. Whiting Leather & Belting Co., Long Island City, N. Y.
DUO-WEAR—Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
DUOMATIC—Lathes. The Lodge & Shipley Machine Tool Co., Cincinnati, Ohio.
DUPLEX — Bench and floor grinders. Walls Sales Corp., New York, N. Y.
DUPLEX—Boiler water feeders. Nason Manufacturing Co., New York, N. Y.
DUPLEX—Feed and overflow valve for oil burners. Efficiency Engineering Co., Boston, Mass.
DUPLEX—Ginsaw files and gumming machines, files and ginsaw gummers. The A. A. Wood & Sons Co., Atlanta, Ga.
DUPLEX—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
DUPLEX—Lubricating oils. Enterprise Oil Co., Inc., Buffalo, N. Y.
DUPLEX—Pop valves. The Lunkenheimer Co., Cincinnati, Ohio.
DUPLEX AKRON — Copper gaskets. Akron Metallic Gasket Co., Akron, Ohio.
DUPLEX HYPOID—Gear compound. Enterprise Oil Co., Inc., Buffalo, N. Y.
DUPLEX UPRIGHT — Vertical power pump. Dean Brothers Co., Indianapolis, Ind.
DUR LOX—Wire cloth. The W. S. Taylor Co., Cleveland, Ohio.
DURA-BILT — Wire wheel and Tampico wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
DURA-STIX—Firebrick cement. Keystone Refractories Co., New York, N. Y.
DURABESTOS — Brake linings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
DURABLE—Duplex steam pumps. Dean Brothers Co., Indianapolis, Ind.
DURACO — Asbestos packings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
DURAFLEX—Hack saw blades. Henry Disston & Sons, Inc., Philadelphia, Pa.
DUREX—Step ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
DURCO—Paints, varnish and turpentine. Duryea Manufacturing Co., Bayonne, N. J.
DURIFLEX — Boiler front cement and wall covering. The Wills Products Co., New York, N. Y.
DURO—Blow-off valves. The Lunkenheimer Co., Cincinnati, Ohio.
DURO — Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
DURO BRACE TEXSTEEL — Sheaves. Allis Chalmers Manufacturing Co., Milwaukee, Wis.
DURO-FERRIC-KOTE — Paint. Otley Paint Mfg. Co., Chicago, Ill.
DUROIL—Motor oil. The Franklin Oil & Gas Co., Bedford, Ohio.
DUROMITE—Bronze alloy for valve trimming. The Fisher Governor Co., Marshalltown, Iowa.
DUROTRED—Matting. The B. F. Goodrich Co., Cleveland, Ohio.
DUSTITE—Gates. R. H. Beaumont Co., Philadelphia, Pa.
DUTCH BOY—White and red lead, linseed oil, babbitt, solder and lead pipe. National Lead Co., New York, N. Y.
DUXBAK—Leather belting. Chas. A. Schieren Co., New York, N. Y.
DWARF—Lock grease cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
DYNAMITE—Armored rubber steam hose. Mulconroy Co., Inc., Philadelphia, Pa.
DYNAMO—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
DYNAMO—Belts. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

E

EWC—Trailers. Electric Wheel Co., Quincy, Ill.
E-Z—Bolt anchors. The Kempton Manufacturing Corp., New York, N. Y.
E-Z—Welding compound. Anti-Borax Compound Co., Fort Wayne, Ind.
E.Z.—Wire strippers. Ideal Commutator Dresser Co., Sycamore, Ill.
E. Z. GRIP—Brake lining. Burrel Belting Co., Chicago, Ill.
EAGLE—Files. Nicholson File Co., Providence, R. I.
EAGLE—Leather belting. Chas. A. Schieren Co., New York, N. Y.
EAGLE—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
EAGLE ACE—Hose. New York Belting & Packing Co., Passaic, N. J.
EARLE—Cut gears. The Earle Gear & Machine Co., Philadelphia, Pa.
EASE ON—Stick belt dressing. The American Belting Companies, Baltimore, Md.
EASTON—Solid woven cotton belt. Victor-Balata & Textile Belting Co., New York.
EASY—Car movers. The Stafford Co., Chicago, Ill.
EBONITE—Brake lining. L. J. Miley Co., Inc., Chicago, Ill.

UMI

EBONY—Transmission and conveyor belting. Burrel Belting Co., Chicago, Ill.
ECLIPSE—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
ECLIPSE—Machinists' vises. The Charles Parker Co., Meriden, Conn.
ECLIPSE—Smoke and combustion indicators. T. W. McNeill Engineering Equipment Co., Chicago, Ill.
ECLIPSE CORN KING — Yard hydrants. John C. Kupferle Foundry Co., St. Louis.
ECLIPSE UNDERWRITERS — Fire hydrants. John C. Kupferle Foundry Co., St. Louis, Mo.
ECLO—Hand leathers. The Eagle Counter & Leather Co., Cincinnati, Ohio.
ECO—Portable watchman's clock. Detex Watchclock Corp., Chicago, Ill.
ECOLITE—Portable electric hand lanterns. Economy Electric Lantern Co., Inc., Chicago, Ill.
ECONOMIC — Boilers. Erie City Iron Works, Erie, Pa.
ECONOMY—Belt dressing. Baltimore Belting Co., Baltimore, Md.
ECONOMY—Faucets (hot and cold water mixing). Morse Grate Bar Co., Inc., Providence, R. I.
ECONOMY — Grease cups. American Injector Co., Detroit, Mich.
ECONOMY—Hack saw machines. W. Robertson Machine & Foundry Co., Buffalo.
ECONOMY—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ECONOMY—Wire wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
ECONOMY HYDRAULIC—Damper regulators. L. G. Doolittle, Binghamton, N. Y.
ECONOMY STRIP — Strip copper. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
EDGECUT—Lintersaw gummer files. The A. A. Wood & Sons Co., Atlanta, Ga.
EDISON — Electric mine safety lamps. Mine Safety Appliances Co., Pittsburgh.
EDMANCO—Roofing and sheet steel products. The Edwards Manufacturing Co., Inc., Cincinnati, Ohio.
EFFICIENCY — Cotters and flat spring keys. The Lamson & Sessions Co., Cleveland, Ohio.
EGYPTIAN—Flax packing. A. W. Chesterton Co., Boston, Mass.
1846 PARA — Transmission belting and hose. New York Belting & Packing Co., Passaic, N. J.
EISEN-GLANZ — Hot surface paint. Ensign Products Co., Cleveland, Ohio.
EL CAPITAN — Sheet packing. Rhopac Products Corp., Chicago, Ill.
EL TORO—Leather belt dressing. Baldwin Belting & Leather Co., Inc., New York, N. Y.
ELASTIC STANDARD—Mill white paint. H. Rinald Co., Philadelphia, Pa.
ELASTITE — Asphalt specialties. The Philip Carey Co., Lockland, Cincinnati.
ELASTIC—Rubber belt splicing cement. Norton Belting Co., Wellesley Hills, Mass.
ELBON—Hose and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELECTRAKEEN—Lawn mower sharpener. Foley Manufacturing Co., Inc., Minneapolis, Minn.
ELECTRA-WELD—Circular wire brushes. The Herold Bros. Co., Cleveland, Ohio.
ELECTRIC—Steel wheels. Electric Wheel Co., Quincy, Ill.
ELECTRIC ABRASIVE — Metal cutting abrasive cloth. H. H. Barton & Son Co., Troy, N. Y.
ELECTRIC BRONZE — Bronze bars and pipe fittings M. L. Oberdorfer Brass Co., Syracuse, N. Y.
ELECTRIC WATER BOY—Electric automatic cellar drainer. Weil Pump Co., Chicago, Ill.
ELECTRIMMER—Hedge trimmer. Skilsaw, Inc., Chicago, Ill.
ELECTROGUN—Power lubrication equipment. Alemite Corp., Chicago, Ill.
ELECTRO-LIFT—Electric hoists. Products Manufacturing Co., Milwaukee, Wis.
ELECTROLON—Grinding wheels, rubbing bricks, etc. The Abrasive Co., Division of Simonds Saw and Steel Co., Philadelphia, Pa.
ELECTROMIL—Milling machine. Sundstrand Machine Tool Co., Rockford, Ill.
ELECTROPUMPS — Circulating pumps. Lawrence Pump & Engine Co., Lawrence, Mass.
ELEMENT ROPE — Balata "V" belting. R. & J. Dick Co., Inc., Passaic, N. J.
ELEVAY — Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELK—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ELK—Shut-off nozzles, hose racks and reels. Elkhart Brass Mfg. Co., Elkhart, Ind.
ELM CITY—Metal punches. The Wm. Schollhorn Co., New Haven, Conn.
ELWEL—Coil, machine and truck chain. American Chain Co., Inc., Bridgeport, Conn.
EMBLEM—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
EMERALD CORD—V belts and air hose. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
EMERGENCY — Steam traps. Wright-Austin Co., Detroit, Mich.
EMERGENCY—Lubricators. American Injector Co., Detroit, Mich.
EMERGENCY—Pipe clamps. M. B. Skinner Co., South Bend, Ind.
EMPECO—Paint. Maire Paint & Mfg. Co., Minneapolis, Minn.
EMPIRE—Bolts, nuts, rivets and washers. Russell, Burdsall & Ward Bolt and Nut Co., Port Chester, N. Y.
EMPIRE — Double-acting force pumps. Goulds Pumps, Seneca Falls, N. Y.
EMPIRE — Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
EMPIRE-MOHAWK—Flint paper. Behr-Manning Corporation, Troy, N. Y.
EMRICK (ETTCO-EMRICK) — Tapping devices. Ettco Tool Co., Inc., Brooklyn, N. Y.
ENDURANCE — Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
ENDUCO — High temperature pipe and boiler covering. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
ENGBERG — Steam engines and engine generator sets. Troy Engine & Machine Co., Troy, Pa.
ENGINEERS' FAVORITE—Flue scraper. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
EQUATOR—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
EQUIPOISE—Rotary shaft valves, etc. H. Belfield Co., Philadelphia, Pa.
EQUIPTO—Steel factory equipment. Aurora Equipment Co., Aurora, Ill.
EQUOTAN — Leather belting. Holyoke Belting Co., Holyoke, Mass.
ERBCO—Grease wheel lubricant and "Drifinish." E. Reed Burns Mfg. Corp., Brooklyn, N. Y.
ERIE — Drilling and tapping machines. Hays Manufacturing Co., Erie, Pa.
ERIE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
ESICO—Industrial electric soldering irons, etc. Electric Soldering Iron Co., Inc., New York, N. Y.
ESSENTIOLITE—Welding glass. Chicago Eye Shield Co., Chicago, Ill.
ESSTEE—Paint. American Asphalt Paint Co., Chicago, Ill.
EUREKA—Gauge glasses. Semon Bache & Co., New York, N. Y.
EUREKA—Hose couplings for rock drills. The Rauch Manufacturing Co., Galena, Kan.
EUREKA—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
EUREKA—Leather belting. Page Belting Co., Concord, N. H.
EUREKA—Paints, cements, etc. Otley Paint Mfg. Co., Chicago, Ill.
EUREKA—Post hole diggers. Iwan Brothers, South Bend, Ind.
EUREKA — Rope and twine. Columbian Rope Co., Auburn, N. Y.
EVALLOY—Stainless steel. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVALNITE—Nitralloy. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVALTHRUST—Ball bearing yoke. The Edward Valve & Mfg. Co., East Chicago, Ind.
EVANACTION—Diaphragm valves. Taylor Instrument Companies, Rochester, N. Y.
EVANSTON—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
EVEN TRIM — Special machine butcher block and casting brushes and wire brooms. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
EVERDUR—Sheets, wire, tubes, etc. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
EVEREDY — Electric hoists. Reading Chain & Block Corp., Reading, Pa.
EVERGRIP—Hose clamps. Everhot Mfg. Co., Maywood, Ill.
EVERLAST—Mops. Sullivan Brush Co., Terre Haute, Ind.
EVERLASTING—Brazed steel oilers. P. Wall Mfg. Supply Co., Pittsburgh.
EVER-READY—Combination woodworker. Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
EVERWELD — Metal bar. Everhot Mfg. Co., Maywood, Ill.
EVRINEDE — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
EVRTYTE — Globe valves. The Strong, Carlisle & Hammond Co., Cleveland, O.
EWART—Link belt. Link-Belt Co., Chicago, Ill.
EXCEL—Porcelain wire connectors. Ideal Commutator Dresser Co., Sycamore, Ill.
EXCEL—Welding torches and gas regulators. Superior Oxy-Acetylene Co., St. Louis, Mo.
EXCEL-ALL — Canvas polishing wheels. Divine Brothers Co., Utica, N. Y.
EXCELLAL BULL DOG — Tool grinders and electric bench grinder. Western Hdwe. Mfg. Co., Milwaukee, Wis.
EXCELSALL—Tool handles. O. P. Link Handle Co., Salem, Ind.
EXCELPAX — Packing. Excel Asbestos Mfg. Co., Garwood, N. J.
EXCELSIOR—Gauge cocks. The Lunkenheimer Co., Cincinnati, Ohio.
EXCELSIOR — Grinders, drills, presses, etc. Royersford Foundry and Machine Co., Royersford, Pa.
EXCELSIOR — Rotary pumps. Foster Pump Works, Brooklyn, N. Y.
EXCITER—Round leather belting. McCauley Belting Co., Chicago, Ill.
EXHAUSTEAM—Purifier. Moorhead Mfg. Co., Detroit, Mich.
EXPLOSO—Lubricators. American Injector Co., Detroit, Mich.
EXTRA CHOICE—Leather belting, belt cement, lubricant, etc. O'Meara Belting Co., Omaha, Neb.
EXTRA SHORT LAP—Leather belting. Graton & Knight Co., Worcester, Mass.
EXTRUDO—Wire. Youngstown Sheet and Tube Co., Youngstown, Ohio.
EZY-OUT—Screw extractors. The Cleveland Twist Drill Co., Cleveland, Ohio.

F

F.B.C.—Pump valve seat refacing tools. Furness Bros. Co., Chicago, Ill.
F. & D.—Gauge glasses. Friedrich & Dimmock, Millville, N. J.
F AND H—Pipe bands. Sacramento Pipe Works, Sacramento, Calif.
FABRI-KROME — Leather faced cotton belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
FALCON—Chain tongs. J. H. Williams & Co., New York, N. Y.
FALCON—Tool handles. American Handle Co., Jonesboro, Ark.
FAMOUS—Belt dressing. McCauley Belting Co., Chicago, Ill.
FAST—Flexible couplings. The Bartlett Hayward Co., Baltimore, Md.
FAULTLESS—Conveyor belt. Link-Belt Co., Chicago, Ill.
FAULTLESS—Hose. Home Rubber Co., Trenton, N. J.
FAV-O-RITE—Valve lifters. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
FAVORITE—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
FAVORITE—Reversible ratchet wrench. Greene, Tweed & Co., New York, N. Y.
FEATHERVALVE—Air, gas and ammonia compressors. Worthington Pump and Machinery Corp., Harrison, N. J.
FEATHERWEIGHT—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
FEATHERWEIGHT—Pipe and boiler insulation. Keasbey & Mattison Co., Ambler, Pa.
FEDELCODE — Electric sirens. Federal Electric Co., Chicago, Ill.
FEDERALITE—Metallic packing. Federal Metallic Packing Co., Wakefield, Mass.
FEDERAL WARRANTED—Gauges. The Mercoid Corp., Chicago, Ill.
FEL-PRO—Gaskets, washers and packing. Felt Products Mfg. Co., Chicago, Ill.
FEMPAC—Plastic packing. Federal Metallic Packing Co., Wakefield, Mass.
FERRENEWO IBBM—Globe, angle, cross and check valves. The Lunkenheimer Co., Cincinnati, Ohio.
FERRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
FERRO CASE—Case hardening compounds. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
FERROLITE—Grinding wheels. E. C. Atkins and Co., Indianapolis, Ind.
FERROPAC—Victor Mfg. & Gasket Co., Chicago, Ill.
FIBRELASTIC—Cork gaskets. American Cork & Insulation Co., Industrial Division, Lancaster, Pa.
FIBREX—Non-metallic tree wire. Simplex Wire & Cable Co., Boston, Mass.
FIBROFELT—Insulating board. Union Fibre Sales Co., Winona, Minn.
FIBRO-FORGED—Hollow screws, set and cap. Holo Krome Screw Corp., Bristol, Conn.
FIBRO-SUPERHEAT-SHEET—Packings. New York Belting & Packing Co., Passaic, N. J.
FIDELITY—Cotton waste, wiping rags and journal box packing. The J. Milton Hagy Waste Works, Philadelphia, Pa.

UMI

FIDELITY—Raw edge transmission belting. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
FIELDCO — Washers, gaskets, packing, etc. R. B. Field & Co., Worcester, Mass.
FILMON—Boiler and anti-rust treatment. The Hollow Center Packing Co., Cleveland, Ohio.
FILQUIK—Gasoline nozzle valves. The D. T. Williams Valve Co., Cincinnati, O.
FIRE-GUN—Fire extinguishers. American-LaFrance & Foamite Corp., Elmira, N. Y.
FIREBOND—High temperature bonding mortar. Harbison-Walker Refractories Co., Pittsburgh, Pa.
FIRECRETE—Refractory cements. Johns-Manville Sales Corp., New York, N. Y.
FIREITE—Refractory cements. Johns-Manville Sales Corp., New York, N. Y.
FIRELESS HYPRESSURE JENNY—Vapor spray cleaning machine. Homestead Valve Mfg. Co., Coraopolis, Pa.
FIRMA—High pressure gauge glasses. Advance Packing & Supply Co., Chicago.
FIRMTREAD—Steel floor plates. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
FIRMUS—Tool handles. O. P. Link Handle Co., Salem, Ind.
FIRO—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
FIRST AID—Fire extinguisher. W. D. Allen Mfg. Co., Chicago, Ill.
FISCO—Corrosive resisting valve trimming. The Fisher Governor Co., Marshalltown, Iowa.
FISH & HOOK BRAND—Saws. Sandvik Saw & Tool Corp., Minneapolis, Minn.
FISHERMAN—Gasoline engines. Loane Engineering Co., Baltimore, Md.
FIX KWIK—Commutator compounds and lubricants. Technical Products Co., Pittsburgh, Pa.
FLARING—Sprinklers. L. R. Nelson Mfg. Co., Inc., Peoria, Ill
FLASTIC—Grinding wheels. The Sterling Grinding Wheel Co., Abrasive Division of The Cleveland Quarries Co., Tiffin, O.
FLAT UNICOAT — Mill white paint. H. Rinald Co., Philadelphia, Pa.
FLATPLUG—Valves. Everlasting Valve Co., Jersey City, N. J.
FLATROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.
FLAWLESS BRAND SEAMLESS—Brass and copper tubing and ferrules. The National Copper & Smelting Co., Cleveland, Ohio.
FLEETWELD — Welding electrode. The Lincoln Electric Co., Cleveland, Ohio.
FLETCHER—Gauge glass cutters. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
FLEXCO & FLEXCO LOK—Electric lamp guards. Flexible Steel Lacing Co., Chicago, Ill.
FLEXCO D. W.—Deep well belt clamps. Flexible Steel Lacing Co., Chicago, Ill.
FLEXCO H D—Belt lacing, fasteners and hooks. Flexible Steel Lacing Co., Chicago, Ill.
FLEXI UNIT—Centrifugal pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
FLEXIBLAC—Protective paint. The Wilbur & Williams Co., Boston, Mass.
FLEXICORD—Endless belts and paper mill hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
FLEXITE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
FLEXITITE—Gate valves. Ohio Brass Co., Mansfield, Ohio.
FLEXLOCK—Pipe joints. The B. F. Goodrich Co., Cleveland, Ohio.
FLEXMORE—Balata sieve lining and balata belting. Victor Balata Textile & Belting Co., New York, N. Y.
FLEXOID—Flexible couplings. The Smith Power Transmission Co., Cleveland, O.
FLEXOTYPE—Leather belting. Alexander Brothers, Inc., Philadelphia, Pa.
FLEXPAN—Flexible joint gas pipe. Pacific States Cast Iron Pipe Co., Provo, Utah.
FLEXSEAL—Hose joints. The B. F. Goodrich Co., Akron, Ohio.
FLEXSET—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
FLEXSTEEL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
FLEXTIC—Leather belt dressing. Norton Belting Co., Wellesley Hills, Mass.
FLINT EDGE—Axes, hammers, hatchets, etc. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
FLINT-IRON—Ash conveyor pipe. The Frederick Iron & Steel Co., Frederick, Md.
FLINT-RIM—Sprocket wheels. Link-Belt Co., Chicago, Ill.
FLOWER—Check and balanced valves. Scott Valve Manufacturing Co., Detroit, Mich.
FOAMITE—Fire extinguishers, foam generators and systems, etc. American-LaFrance and Foamite Corp., Elmira, N. Y.
FONDCOAT — Waterproofing compounds. Goheen Corporation of New Jersey, Newark, N. J.
FOOTLIFT—Lift trucks. Lewis-Shepard Co., Boston, Mass.
FORBES—Pipe, bolt and nipple threading machines, etc. The Curtis & Curtis Co., Bridgeport, Conn.
FORCEWELD—Casters. The Service Caster & Truck Co., Albion, Mich.
FORD—Ship augers. Millers Falls Co., Greenfield, Mass.
FORESTER—Brush cutting and pruning tool. H. K. Porter, Inc., Everett, Mass.
FORGSTEEL—Fittings and valves. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
FORMPROOF—Metal, money bag and milk can seals. Chicago Expansion Bolt Co., Chicago, Ill.
FORTUNE—Transmission belting. The Mechanical Rubber Co., Passaic, N. J.
FORZOIL—Pump type hand oilers. Anthes Force Oiler Co., Fort Madison, Iowa.
FRANCKE — Flexible shaft couplings. Smith & Serrell, Newark, N. J.
FRANKO — Solid woven belting. The Franklin Cotton Mill Co., Cincinnati, O.
FREFLO—Sewage pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
FRESNO—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
FROTHEX FOAM — Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
FULTON—Hose, belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
FYER-WAY—Fire doors. Richards-Wilcox Mfg. Co., Aurora, Ill.
FYRPRUF—Fireproof clothing, leggings, etc. Gross Rubber Co., Sharon, Pa.

G

"G"—Fittings, pipe hangers, valves. Grinnell Co., Inc., Providence, R. I.
"G" (in circle)—Hack saw blades. Goodell-Pratt Co., Greenfield, Mass.
G & F—Gears, speed reducers, flexible couplings, etc. Gears and Forgings, Inc., Cleveland, Ohio.
G.I.A.—Abrasive discs. Gardner Machine Co., Beloit, Wis.
G.L.—Oilers. Gustave Lidseen, Inc., Chicago, Ill.
G.P.&F.—Sheet metal products. Geuder, Paeschke & Frey Co., Milwaukee, Wis.
GP 777—Hack saw blades. Goodell-Pratt Co., Greenfield, Mass.
GA-SMOKE—Burners. Bate Boiler Efficiency Co., Conshohocken, Pa.
GALVACAP—Industrial brooms. Deshler Broom Factory, Deshler, Neb.
GALVANIDE ZINC—Paint. A. C. Horn Co., Long Island City, N. Y.
GALVANITE—Paint. Otley Paint Mfg. Co., Chicago, Ill.
GALVANNEAL — Steel sheets. Youngstown Sheet and Tube Co., Youngstown, Ohio.
GALVANUM—Paint for galvanized iron. Goheen Corporation of New Jersey, Newark, N. J.
GAM-TAN BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
GANISAND—Granular refractory. Quigley Co., Inc., New York, N. Y.
GARCO—Packing, wick, rope and gasket tape. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
GARCOBESTOS—Asbestos metallic sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
GARDEN CITY—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
GARDEN CLUB—Garden hose. The B. F. Goodrich Co., Akron, Ohio.
GARFIELD—Injectors and ejectors. Ohio Injector Co., Wadsworth, Ohio.
GARNET—Rubber air hose. Mulconroy Co., Inc., Philadelphia, Pa.
GAS ENGINE—Grease cups. American Injector Co., Detroit, Mich.
GASOGUN—Gasoline nozzle valves. The D. T. Williams Valve Co., Cincinnati, O.
GASOILA—Varnish and cement. The Federal Process Co., Cleveland, Ohio.
GASPARKS—Ball and socket joints. Morgannade, Inc., Keene, N. H.
GAYLIME—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
GEARKOTE—Gear lubricant. The Metalene Chemical Co., Cleveland, Ohio.
GEE FLEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
GEM—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
GEM—Tapes. Eugene Dietzgen Co., Chicago, Ill.
GEM—Tool handles. Hartwell Brothers, Memphis, Tenn.
GENERAL — Adjustable hose clamps. American Stamping Co., Battle Creek, Mich.
GENUINE DETROIT—Lubricators, radiator valves and heating accessories. Detroit Lubricator Co., Detroit, Mich.
GENUINE KARNS BOW SPRING—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
GIANT—Blower and suction devices. Ideal Commutator Dresser Co., Sycamore, Ill.
GIANT—Keyseater and nibbler. Mitts and Merrill, Saginaw, Mich.
GIANT—Manila rope. The Upson-Walton Co., Cleveland, Ohio.
GIANT—Ratchet socket wrenches. Keystone Mfg. Co., Buffalo, N. Y.
GIANT—Tank pumps. The Deming Co., Salem, Ohio.
GIANT METAL—Sash chain. The Smith & Egge Division of The Turner & Seymour Mfg. Co., Torrington, Conn.
GIBBS—Automatic grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
GIBBS—Post hole diggers. Iwan Brothers, South Bend, Ind.
GIBRALTAR—Canvas stitched belting. Johnson Belting Co., New York, N. Y.
GILBERT—Gauge glass gaskets. Morse Grate Bar Co., Inc., Providence, R. I.
GILMORE—Boiler tube cleaners. D. J. Crowell & F. G. Crowell, Buffalo, N. Y.
GILSEK—Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
GILT EDGE—Flat leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GILT EDGE—Round leather belting. I. B. Williams & Sons, Dover, N. H.
GILT EDGE SPINDLE—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GLASS VALVE—Brass and brass lined cylinders. The F. E. Myers & Bros. Co., Ashland, Ohio.
GLASWICK—Oil cup. The Lunkenheimer Co., Cincinnati, Ohio.
GLAZO—Glazing and calking cement. Ensign Products Co., Cleveland, Ohio.
GLOBE—Cornered steel grit. The Globe Steel Abrasive Co., Mansfield, Ohio.
GLUTE—Flake and liquid glue. Technical Products Co., Pittsburgh, Pa.
GLYCO—Babbitt metal. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
GOLD BOND—Babbitt. Gardiner Metal Co., Chicago, Ill.
GOLD BOND—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
GOLD BOND—Core oils. Spencer Kellogg & Sons, Inc., Buffalo, N. Y.
GOLD BOND—Putty. Baker Paint & Varnish Co., Jersey City, N. J.
GOLD EDGE—Brake lining. Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
GOLD MEDAL—Files. Henry Disston & Sons, Inc., Philadelphia, Pa.
GOLD MEDAL—Ladders and scaffolding. The Patent Scaffolding Co., Chicago, Ill.
GOLD SEAL—Pump valves and valve discs. Rhopac Products Corp., Chicago, Ill.
GOLD STRAND—Screen cloth. Wickwire Spencer Steel Co., New York, N. Y.
GOLD STRIPE—Paint, varnish and calcimine, etc., brushes, etc., Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
GOLD TIP—Glass cutters. The Fletcher-Terry Co., Forestville, Conn.
GOLDEN GATE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GOLDEN OAK—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
GOLDEN ROD—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
GOLDEN RULE—Grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
GOLDEN STATE—Leather belting and cup leathers. H. N. Cook Belting Co., San Francisco, Calif.
GOLDEN STATE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GOLDSMITH—Hose rack. W. D. Allen Mfg. Co., Chicago, Ill.
GOLDSMITH — Throttle valves. Scott Valve Manufacturing Co., Detroit, Mich.
GOODENUF—Tool handles. O. P. Link Co., Salem, Ind.
GOPHER—Floor trucks. Nutting Truck Co., Faribault, Minn.
GOTHIC—Asbestos Cement Shingles. The Ruberoid Co., New York, N. Y.
GOVERNMENT GENUINE—Babbitt. United American Metal Corp., Brooklyn, N. Y.
GRADA—Metal tile and porcelain cleanser. The Grady Mfg. Co., Long Island City, N. Y.
GRAINOR—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GRAINVEY—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GRAKNIGHT DYNAMO—Leather belting. Graton & Knight Co., Worcester, Mass.
GRANITE-OAK—Leather belting. Geo. Rahmann & Co., New York, N. Y.

GRAPHON—Rod packing. New York Belting & Packing Co., Passaic, N. J.
GRAPHOXIDE IRON CLAD—Paint. Otley Paint Mfg. Co., Chicago, Ill.
GRAY LINE (THE)—Woodworking machinery. Delta Mfg. Co., Milwaukee, Wis.
GREASEAL — Felt protected bearings. Norma-Hoffmann Bearings Corp., Stamford, Conn.
GREAT SEAL—Transmission and conveyor belting. New York Belting & Packing Co., Passaic, N. J.
GREAT WESTERN—Files. Nicholson File Co., Providence, R. I.
GREEN KNIGHT—Water systems. Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
GREEN LABEL—Tool steels. William Jessop & Sons, Inc., New York, N. Y.
GREEN LINE—Tackle blocks. The Upson-Walton Co., Cleveland, Ohio.
GREEN LINE—Tools. The Kilborn & Bishop Co., New Haven, Conn.
GREEN RIVER—Straightening presses, shoeing vises, bolt headers, mandrels, etc. B. B. Noyes Co., Greenfield, Mass.
GREEN TANG—Files. The Arion Steel Co., Boston, Mass.
GREFCO — Refractory cement. General Refractories Co., Philadelphia, Pa.
GRENADIER—Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
GREY-ROCK—Asbestos brake linings and clutch facings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
GRIDISC—Disc grinding wheels. Peninsular Grinding Wheel Co., Detroit, Mich.
GRIMM'S BLOWER—Tube cleaners. William H. Murray, Richmond Hill, New York, N. Y.
GRIP-O-TAN — Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
GRIP-TITE—Belt and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GRIP-TITE—Hose clamps. Clamps, Inc., Brooklyn, N. Y.
GRIPON—Wire lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
GRIPSTICK—Leather belting. Chicago Belting Co., Chicago, Ill.
GRIZZLY—Portable loaders. Link-Belt Co., Chicago, Ill.
GROG-O-MIX—Crushed fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
GROOM—Leather belting. Foss & Bump, Inc., Springfield, Mass.
GRUNDY — Flexible couplings. Charles Bond Co., Philadelphia, Pa.
GUARANTEED — Transmission belting. New York Belting & Packing Co., Passaic, N. J.
GUARD—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
GUARDENE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.
GUARDIAN — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
GUARDIAN—Watchman's single station register. Detex Watchclock Corp., Chicago, Ill.
GULP—Belt, hose, packing and mats. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
GUN METAL—Belt studs. Manufacturers' Belt Hook Co., Chicago, Ill.
GUYEYE—Combination eye bolt and thimble. Hubbard & Co., Pittsburgh, Pa.

H

H&A—Bench woodworking machines. Heston & Anderson, Fairfield, Iowa.
HB—Ball bearings. S.K.F. Industries, Inc., Philadelphia, Pa.
HB—Circular tampico brushes. The Herold Bros. Co., Cleveland, Ohio.
H. B.—Dredge chain. American Chain Co., Inc., Bridgeport, Conn.
H. P. M.—Casters. The Hamilton Foundry & Machine Co., Hamilton, Ohio.
H-H INHALATORS—Resuscitation equipment. Mine Safety Appliances Co., Pittsburgh, Pa.
HL—Pumps. Lawrence Pump & Engine Co., Lawrence, Mass.
HKP—Bolt clippers, chain cutters, nut splitters and shear cutters. H. K. Porter, Inc., Everett, Mass.
HWR—Basic refractories. Harbison Walker Refractories Co., Pittsburgh, Pa.
HP—Pulleys, hangers, etc. Boston Gear Works, Inc., North Quincy, Mass.
H-P-M — Presses, pumps, accumulators, valves and fittings. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
HADCO—Bin labels, medal card holders, etc. Haddon Bin Label Co., Haddon Heights, N. J.
HADES — Belting. Gandy Belting Co., Grand Rapids, Mich.
HAGER—Check valves. The Williams Gauge Co., N. S., Pittsburgh, Pa.
HALLOWELL—Benches, trucks and platforms. Standard Pressed Steel Co., Jenkintown, Pa.
HAMILTON—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
HAMMER—Clamps and oilers. Malleable Iron Fittings Co., Branford, Conn.
HAMMON—Pipe couplers. Hope Engineering Co., Mt. Vernon, Ohio.
HAMMOND—Drilling, tapping and polishing machines. The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
HAMPDEN — Leather belting. Holyoke Belting Co., Holyoke, Mass.
HAN-DEE—Belt dressing. Duryea Manufacturing Co., Bayonne, N. J.
HANCOCK — Valves. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
HAND PACER—Bushing tool. The Dallett Co., Philadelphia, Pa.
HAND-EE—Portable electric grinders. M. C. Tool Co., Chicago, Ill.
HANDIE-BARO—Wheelbarrows. Sterling Wheelbarrow Co., Milwaukee, Wis.
HANDMADE — Hammers and hatchets. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
HANDNIB—Combined shear nibbler, rod cutter and inside nibbler. National Machine Tool Co., Racine, Wis.
HANDY—Cleaner brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
HANDY—Cotter pins, lock washers, etc. Heiz & Heiz, Inc., Brooklyn, N. Y.
HANDY—Gate valves. The Lunkenheimer Co., Cincinnati, Ohio.
HANDY—Lights. National Carbide Sales Corp., New York, N. Y.
HANDY—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
HANDY ANDY—Tool grinders. Norton Pike Co., Pike, N. H.
HANDY ANDY—Vise stand. Western Wire Products Co., St. Louis, Mo.
HANDY BOY—Gas tapping machines. Hays Manufacturing Co., Erie, Pa.
HANDY-MAN—Pick-up trucks. Saginaw Stamping & Tool Co., Saginaw, Mich.
HANDY PACKAGE—Lace leather. Graton & Knight Co., Worcester, Mass.
HARBRONZ—Cored and solid bronze bars. Arthur Harris & Co., Chicago, Ill.
HARD SPIRAL—Flue brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
HARDIE—Car washers, coal sprayers, air towers, flood lights and sanding machines. Asch & Co., Inc., New York, N. Y.
HARDWEAR—Leather belting. Whiting Leather & Belting Co., Long Island City, N. Y.
HARDWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
HARGRAVE—Mechanics' tools. The Cincinnati Tool Co., Cincinnati, Ohio.
HARSPAR — Power plant instruments. Harry S. Parks Co., Philadelphia, Pa.
HARTFORD—Die filing machines. The Robinson Tool Works, Inc., Waterbury, Conn.
HARTFORD—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
HARTZ—Steel tackle and snatch blocks. H. D. Edwards & Co., Detroit, Mich.
HARWACO BOND — High temperature bonding mortar. Harbison-Walker Refractories Co., Pittsburgh, Pa.
HASTY—Soap. Pacific Chemical Co., Los Angeles, Calif.
HAUSFELD — Metal melting furnaces. The Campbell-Hausfeld Co., Harrison, Ohio.
HAVEN'S—Wire grips. M. Klein & Sons, Chicago, Ill.
HAWK—Tool handles. American Handle Co., Jonesboro, Ark.
HAYNES STELLITE — Wear resisting alloys. The Linde Air Products Co., New York, N. Y.
HEALTHGUARD—Masks. Chicago Eye Shield Co., Chicago, Ill.
HEART OF OAK — Leather belting. Charles L. Ireson Co., Philadelphia, Pa.
HEATHERBRAND—Low pressure gauge glasses. Advance Packing & Supply Co., Chicago, Ill.
HEAT KILLER—Fans. Coppus Engineering Corp., Worcester, Mass.
HEAVY DUTY—Black belting. The Hettrick Mfg. Co., Toledo, Ohio.
HEAVY DUTY — Emery and grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
HEAVY MOTOR—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HELICOID—Screw conveyors. Link-Belt Co., Chicago, Ill.
HELIFLEX — Roller bearings. Roller Bearing Co. of America, Trenton, N. J.
HELIOS — Sheet packing and gaskets. Crandall Packing Co., Palmyra, N. Y.
HELL GATE—Transits. W. & L. E. Gurley, Troy, N. Y.
HELLITE—Refractory cements. Johns-Manville Sales Corp., New York, N. Y.
HEMCO—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HEMEK—Belting. Manheim Mfg. & Belting Co., Manheim, Pa.
HERCULES—Air compressor lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
HERCULES—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
HERCULES — Bronze hydraulic valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
HERCULES—Chains. The Jeffrey Manufacturing Co., Columbus, Ohio.
HERCULES and **HERCULES MAJOR**—Drills. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES—Foot squaring sheet metal shears. Niagara Machine & Tool Works, Buffalo, N. Y.
HERCULES—Gauge glasses. Semon Bache & Co., New York, N. Y.
HERCULES—Leather aprons. Gross Rubber Co., Sharon, Pa.
HERCULES—Leather belting. Page Belting Co., Concord, N. H.
HERCULES — Portable pneumatic tools and machines. The Buckeye Portable Tool Co., Dayton, Ohio.
HERCULES—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
HERCULES—Twist drills, reamers and interchangeable punches. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES ELECTRIC WELD — Steel loading chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
HERCULES MAJOR—Twist drills. Whitman and Barnes, Inc., Detroit, Mich.
HERCULES (RED STRAND)—Wire rope. A. Leschen & Sons Rope Co., St. Louis.
HERCULES SOLID WELD—Steam shovel chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
HERCULES SPECIAL STEEL — Wire rope. A. Leschen & Sons Rope Co., St. Louis, Mo.
HERO—Leather belting. W. S. Nott Co., Minneapolis, Minn.
HERO—Rubber hose. Mulconroy Co., Inc., Philadelphia, Pa.
HERON—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
HET-MA-CO — Power transmission belting. The Hettrick Mfg. Co., Toledo, O.
HETSON—Canvas goods. W. E. Hettrick & Son, Inc., Toledo, Ohio.
HEVI-DUTY — Semi metallic packing. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
HEWMET—Bearing metal. Hewitt Metals Corp., Detroit, Mich.
HEX-TEX — Hexagon two-faced V-belt. Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
HEX-TOP — Grease cups. Link-Belt Co., Chicago, Ill.
HEXAGON—Post hole diggers. Iwan Brothers, South Bend, Ind.
HI-CARLON—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-DUTY CONNECTIONS — Copper and brass tube couplings and paint spray equipment. Imperial Brass Manufacturing Co., Chicago, Ill.
HI GRADE OAK—Belting, pump packing, discs. The Chicago Rawhide Mfg. Co., Chicago, Ill.
HI-LO — Condensation pumps. Yeoman Brothers Co., Chicago, Ill.
HI LOY—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-QUALITY — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-TEMPER—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-TEST — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
HI-UP—Electric hoists. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
HICARBO—Coal chutes. H. B. Sackett Screen & Chute Co., Chicago, Ill.
HICKORY — Belting. Whitehead Bros. Rubber Co., Trenton, N. J.
HICKS—Belt hooks. The Washburn Co., Worcester, Mass.
HICYCLE—Portable electric tools. Chicago Pneumatic Tool Co., New York.
HIFLO — Deepwell pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
HIGH GRADE—Conveyor belting, hose and friction tape. The Mechanical Rubber Co., Passaic, N. J.
HIGH SERVICE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, O.
HIGH SPEED—Shovels. American Manufacturing Co., Chattanooga, Tenn.
HIGHFLEX—Belting. The B. F. Goodrich Co., Akron, Ohio.
HIGHFLEX JUNIOR — Transmission belts. The B. F. Goodrich Co., Akron, O.
HIGHWAY RED—Red lead paint. Goheen Corporation of New Jersey, Newark, N. J.

HILL—Pumps. Dean-Hill Pump Co., Anderson, Ind.
HILO BUTTERFLY—Gas burners. Bastian-Morley Co., La Porte, Ind.
HINDOSTAN—Oil stones. Norton Pike Co., Pike, N. H.
HIRSUTE—Round leather belting. Johnson Belting Co., New York, N. Y.
HITENSO—Trolley. Anaconda Wire & Cable Co., New York, N. Y.
HIWAY-B7-5—Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
HODELL—Coil and sash chain and tire chains. The Chain Products Co., Cleveland, Ohio.
HOFFMAN ECONOMY—Vacuum and condensation pumps. Economy Pumping Machinery Co., Chicago, Ill.
HOKE—Gauge blocks. Pratt & Whitney Co., Hartford, Conn.
HOLD-HEET—Glue pots, heating elements, pots (electric). Russell Electric Co., Chicago, Ill.
HOLE HOG—Machine tools. Moline Tool Co., Moline, Ill.
HOLE SHOOTER—Electric drills. Milwaukee Electric Tool Corp., Milwaukee, Wis.
HOLLY — Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
HOLSCREW—Shaft collars. Bond Foundry and Machine Co., Manheim, Pa.
HOLTITE—Pipe clamps. Yarnall-Waring Co., Philadelphia, Pa.
HOLTITE—Screws, bolts, nuts, etc. Continental Wood Screw Co., New Bedford, Mass.
HOME—Steel tapes. Keuffel & Esser Co., Hoboken, N. J.
HOMEBESTOS—Packing. Home Rubber Co., Trenton, N. J.
HOMESTEAD—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
HOMO—Electric tempering and hardening furnaces. Leeds & Northrup Co., Philadelphia, Pa.
HONOR BRAND — Brushes. Sullivan Brush Co., Terre Haute, Ind.
HONTAS—Screen diaphragms. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
HOOSIER—Mops. Sullivan Brush Co., Terre Haute, Ind.
HORSFIELD—Tap wrenches. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
HORSHOE—Paint, varnish and calcimine, etc., brushes, etc. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
HOUSEHOLD—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
HOVALCO—Blow off valves. Homestead Valve Mfg. Co., Coraopolis, Pa.
HUB—Gasoline torch. The Lenk Mfg. Co., Newton Lower Falls, Mass.
HUDERKUT — Submerged cut off machines. Andrew C. Campbell Division of American Chain Co., Inc., Bridgeport, Conn.
HUG-IT—Belt dressing. Hinds and Coon Co., Boston, Mass.
HUMMER—Foot power grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
HUMP — Electric hardening furnaces. Leeds & Northrup Co., Philadelphia, Pa.
HUMP—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
HUMPHREY—Hand elevators. The Storm Manufacturing Co., Newark, N. J.
HUNTINGTON—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
HUNTINGTON (VINCENT HUNTINGTON)—Emery wheel dressers and cutters. Vincent Steel Process Co., Detroit, Mich.
HURON — Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
HUSKY—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
HUSTLER—Machinery dolly. The Service Caster & Truck Co., Albion, Mich.
HUTTO — Cylinder and hole grinders. Stevens Walden, Inc., Worcester, Mass.
HY-HEET—Electric melting furnaces. R. S. Products Corp., Philadelphia, Pa.
HY-SPEED—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, Ohio.
HY-SPEED—Mortising and boring bits. Star Bit & Tool Co., Rockford, Ill.
HY TEST—Hose. New York Belting & Packing Co., Passaic, N. J.
HYALITE—Refractory brick. Quigley Co., New York, N. Y.
HYATT—Geared and plain trolleys. Ford Chain Block Co., Philadelphia, Pa.
HYCOE—Brake lining, hose, packing and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
HYDRAULIC — Bronze high pressure valves. The Wm. Powell Co., Cincinnati.
HYDRO-POWER — Presses and pumps. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
HYDRO-PROOF—Insulating tape. Elkhart Rubber Works, Elkhart, Ind.
HYDROIL — Small and machine tools. Greenfield Tap & Die Corp., Greenfield, Mass.
HYDROLITE — Integral waterproofing. Goheen Corporation of New Jersey, Newark, N. J.
HYDRO-SEAL—Joint sealing compound. Quigley Co., Inc., New York, N. Y.
HYDROSEAL—Treatment for fire hose jackets. The B. F. Goodrich Co., Akron, Ohio.
HYGIENE — Hose. Home Rubber Co., Trenton, N. J.
HYLO—Lanterns. R. E. Dietz Co., New York, N. Y.
HYPER—Rotary chain (oil well). Link-Belt Co., Chicago, Ill.
HYPERION—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
HYPOWA—Shears, bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.
HYPRESSURE JENNY — Vapor spray cleaning machine. Homestead Valve Mfg. Co., Coraopolis, Pa.
HYPRO—Metal working planers. Cincinnati Planer Co., Oakley, Cincinnati, O.
HYSPEED—Gun metal bronze bars. Buckeye Brass & Mfg. Co., Cleveland, Ohio.
HYTEMPITE—Refractory cement. Quigley Co., Inc., New York, N. Y.
HYTENS — Grinding wheels. Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.

I

I.X.L.—Gear products. Foote Bros. Gear & Machine Co., Chicago, Ill.
I.X.L.—Independent lathe chucks. Westcott Chuck Co., Oneida, N. Y.
IBECO—Transmission belting. Imperial Belting Co., Chicago, Ill.
IDEAL—Belt dressing. Detroit Oak Belting Co., Detroit, Mich.
IDEAL—Car movers. H. B. Sackett Screen & Chute Co., Chicago, Ill.
IDEAL — Chain wrenches. Brunswick-Kroeschell Co., New Brunswick, N. J.
IDEAL—Electric tools. The Schauer Machine Co., Cincinnati, Ohio.
IDEAL—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
IDEAL—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
IDEAL—Hollow augers. The A. A. Wood & Sons Co., Atlanta, Ga.
IDEAL—Hose. Home Rubber Co., Trenton, N. J.
IDEAL—Roadway boxes. S. E. T. Valve and Hydrant Co., New York, N. Y.
IDEAL—Soot cleaner. Perfection Grate & Stoker Co., Springfield, Mass.
IDEAL MOTOR—Babbitt metal. Murphy Metals Co., Chicago, Ill.
IHSEN—Flue cutter. Ajax Manufacturing Co., Pittsburgh, Pa.
IMICO—Unions and boilers. Illinois Malleable Iron Co., Chicago, Ill.
IMMUNITE—Lenses. Harry Buegeleisen, Brooklyn, N. Y.
IMO—Rotary displacement pumps. Geo. H. Gibson Co., New York, N. Y.
IMP—Gasoline blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
IMPERIAL—Flint paper. Minnesota Mining & Mfg. Co., St. Paul, Minn.
IMPERIAL—Gas burners. Davison Combustion Co., Pittsburgh, Pa.
IMPERIAL—Leather belting. The Taylor Belting Co., Indianapolis, Ind.
IMPERIAL—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
IMPERIAL WICK OILING—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
IMPROVED — Automatic alcohol blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
IMPROVED—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
IMPROVED — Drill chucks. Westcott Chuck Co., Oneida, N. Y.
IMPROVED—Wire belt lacing. Kerr & Co., Inc., New York, N. Y.
IMPROVED FOUNDRY—Electric and belt driven grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
IMPROVED MONITOR—Steel wire wheel brushes. Osborn Manufacturing Co., Cleveland, Ohio.
IMPROVED PYRAMID — Horizontal, double-acting piston pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
INBRACO—Tank fittings. The Indiana Brass Co., Frankfort, Ind.
INCASED STEELKOTE—Paint for steel encased in concrete. Goheen Corporation of New Jersey, Newark, N. J.
INCO—Monel metal and nickel. The International Nickel Co., New York, N. Y.
INCOMPARABLE — Independent chucks. The Cushman Chuck Co., Hartford, Conn.
INDEPENDENCE—Packing. Home Rubber Co., Trenton, N. J.
INDEPENDENT—Drill presses. Rockford Machine Tool Co., Rockford, Ill.
INDEPENDENT—Sight feed lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
INDESTRUCTIBLE — Conveyor belting, hose and packing. New York Belting & Packing Co., Passaic, N. J.
INDESTRUCTIBLE—File and tool handles. J. L. Osgood Machinery & Tool Co., Inc., Buffalo, N. Y.
INDESTRUCTIBLE—Steel gongs or bells. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
INDESTRUCTIBLE ROOF PRESERVER—Roof paint. Maire Paint & Mfg. Co., Minneapolis, Minn.
INDESTRUCTO—Truck casters. Divine Brothers Co., Utica, N. Y.
INDIA—Oil stones. Norton Pike Co., Pike, N. H.
INDIAN CHIEF—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
INDIAN RED—Belting and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
INDIAN TAN — Lace leather and cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
INDIANA—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
INDO—Roof coating. American Asphalt Paint Co., Chicago, Ill.
INDUSTRIAL TYPE—Speed reducers. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
INGACLAD—Stainless clad steel. Ingersoll Steel & Disc Co., Newcastle, Ind.
INGALLS—Tube scraper and combination tube scraper and brush. A. W. Chesterton Co., Boston, Mass.
INGALLS IMPROVED—Boiler tube cleaner. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
INGERSOLL SPECIAL—Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
INGHAM—Drag scrapers. Lansing Co., Lansing, Mich.
INNER-CORD — Stitched canvas belting. W. E. Hettrick & Son, Inc., Toledo, Ohio.
INNERDUCK—Combination of leather and fabric belting. The Hettrick Mfg. Co., Toledo, Ohio.
INSA-LUTE—Case hardening and tempering compounds. Technical Products Co., Pittsburgh, Pa.
INSPIRATION—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
INSTANT BELT CLEANER—Dirt and grease remover. F. Raniville Co., Grand Rapids, Mich.
INSUL—Canvas belting. The Raniville Co., Grand Rapids, Mich.
INSULATED SAHARA—Fabric belting. Imperial Belting Co., Chicago, Ill.
INSULATINE—Sealing cements and compounds. Insulatine Co., Inc., New York, N. Y.
INSULOK CROWNER — Bolt, nut and screw caps. The Rawplug Co., Inc., New York, N. Y.
INSWELL ELECTRIC WELD—Coil and cable chain. Columbus McKinnon Chain Corp., Tonawanda, N. Y.
INTERCHANGE—Friction pulley clutches and cutoff couplings. Kinney Manufacturing Co., Boston, Mass.
INTERNATIONAL — Belting, hose and packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
INVADER — Transmission belting and sheet packing. The Republic Rubber Co., Youngstown, Ohio.
INVINCIBLE—Mechanical oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
INVINCIBLE—Polishing wheels. Hanson-Van Winkle-Munning Co., Matawan, N. J.
IRENEW—Iron body renewable seat valves. The Wm. Powell Co., Cincinnati, Ohio.
IRON CLAD—Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
IRONCLAD—Goggles. Chicago Eye Shield Co., Chicago, Ill.
IRON HORSE—Cans, pails, shovels, etc. Rochester Can Co., Rochester, N. Y.
IRONE—Babbitt metal. The Ohio Metal Co., Columbus, Ohio.
IROVERSO—Iron body nickel seat valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
IWANA—Hair belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.

J

J. & B.—Filing and sawing machinery. La Porte Machine & Tool Co., La Porte, Ind.
J. C. M.—Electric floor machines. The Kent Company, Inc., Rome, N. Y.
J. & H.—Demagnetizers. J. & H. Electric Co., Providence, R. I.
JMC—Expansion reamers. Scully Steel & Iron Co., Chicago, Ill.

J.M.D.—Jute brattice cloth. Johnston-Morehouse-Dickey Co., Pittsburgh, Pa.
JACK—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JACK FROST—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
JACKBITS—Detachable rock drill bits. Ingersoll-Rand Co., New York, N. Y.
JACKHAMER—Hammer drills. Ingersoll-Rand Co., New York, N. Y.
JACKLIFT—Lift trucks. Lewis-Shepard Co., Watertown Sta., Boston, Mass.
JADE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
JAHNS—Engine governors. Massey Machine Co., Watertown, N. J.
JAK-TUNG—Factory trucks. Link-Belt Co., Chicago, Ill.
JAMES—Babbitt metal. The Ohio Metal Co., Columbus, Ohio.
JENNINGS & GRIFFIN—Bit extensions, chisels, saws, tool chests, etc. C. E. Jennings & Co., Yalesville, Tracy, Conn.
JERARCO—Sheet packing. Jenkins Bros., New York, N. Y.
JEROME-TYPE — Metallic packings. Northern Metallic Packing Co., St. Paul, Minn.
JERRY—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JEWEL—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
JEWEL—Tool handles. Hartwell Brothers, Memphis, Tenn.
JEWETT—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
JIM—Scrub brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
JO-CHROME—Flat leather belting. Johnson Belting Co., New York, N. Y.
JOBECO—Round and flat leather belting. Johnson Belting Co., New York, N. Y.
JOPACO—Asphalt roofing and asbestos fiber roof coating. Jos. C. Paulus & Co., Philadelphia, Pa.
JORGENSEN—Hand screws and steel bar clamps. Adjustable Clamp Co., Chicago, Ill.
JOY—Air hose couplers. H. D. Edwards & Co., Detroit, Mich.
JUBILEE—Hose. New York Belting & Packing Co., Passaic, N. J.
JUDSON—Hose. Goodall Rubber Co., Philadelphia, Pa.
JUMBO—Gasoline and kerosene stationary engines. Nelson Bros. Co., Saginaw, Mich.
JUMBO—Hose and belting. Home Rubber Co., Trenton, N. J.
JUMBO—Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
JUNIATA—Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
JUNIOR—Lanterns. R. E. Dietz Co., New York, N. Y.
JUNIOR—Lubricator. The Lunkenheimer Co., Cincinnati, Ohio
JUNIOR—Stub lathe. Sundstrand Machine Tool Co., Rockford, Ill.
JUNIOR-X-TRACK TOR—Car unloaders and bucket loaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
JUPITER—Hose. The B. F. Goodrich Co. Akron, Ohio.
JUSTATE—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
JUSTRITE—Spray nozzle. W. D. Allen Mfg. Co., Chicago, Ill.

K

K.C.—Ice can filler. E. I. Miller Mfg. Co., Kansas City, Mo.
K-O—Leather belting. The Eagle Counter & Leather Co., Cincinnati, Ohio.
K. U.—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
K & T—Automatic valves. Klipfel Manufacturing Co., Chicago, Ill.
KAKTUS KID—Door mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
KALKTITE—Asphalt cement. Presstite Engineering Co., St. Louis, Mo.
KANKA—Roof coating. American Asphalt Paint Co., Chicago, Ill.
KANTARK—Non-renewable fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
KANTLINK—Spring washers, nut locks. The Positive Lock Washer Co., Newark, N. J.
KARBONITE—Sheet packings. New York Belting & Packing Co., Passaic, N. J.
KARNS—Valve cups. Parker Cup & Specialty Works, Parkers Landing, Pa.
KARROPAK—Treated paper packing material. Felt Products Mfg. Co., Chicago.
KASSON—Grease. Enterprise Oil Co., Inc., Buffalo, N. Y.
KAST SET—Castable refractory. A. P. Green Fire Brick Co., Mexico, Mo.
KATCHALL—Waste barrels. Fibre Specialty Mfg. Co., Kennett Square, Pa.
KATHODE—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
KEARNEY & FOOT—Files. Nicholson File Co., Providence, R. I.
KEARSARGE — Packings and gaskets. Johns-Manville Sales Corp., New York.
KEEP-IT-TITE — Valve stem packing. Home Rubber Co., Trenton, N. J.
KEFRAKTO — Granular refractory for surface coating. Keystone Refractories Co., New York, N. Y.
KELLER—Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
KELLY-COVINGTON—Shale excavators. Covington Machine Co., Inc., Covington, Va.
KENNETT—Cans, barrels, trucks, etc. Fibre Specialty Mfg. Co., Kennett Square, Pa.
KENSINGTON—Leather belting. Jos. C. Paulus & Co., Philadelphia, Pa.
KERN—Hoists. Construction Machinery Co., Waterloo, Iowa.
KEY—Graphite paste. Key Boiler Equipment Co., East St. Louis, Ill.
KEY-TITE—Pipe joint compound. Key Boiler Equipment Co., East St. Louis, Ill.
KEYSTONE — Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
KEYSTONE—Bar folders. Niagara Machine & Tool Works, Buffalo, N. Y.
KEYSTONE — Canvas stitched belting. Manheim Mfg. & Belting Co., Manheim, Pa.
KEYSTONE—Chain hoists. The Harrington Co., Philadelphia, Pa.
KEYSTONE — Lock washers, etc. The Positive Lock Washer Co., Newark, N. J.
KEYSTONE—Vises. Hollands Mfg. Co., Erie, Pa.
KEYSTONE TYPE — Steel split pulleys. Dodge Manufacturing Corp., Mishawaka, Ind.
KHASIA—Emery. Keystone Emery Mills, Philadelphia, Pa.
KILINDO-NON ROTATING—Wire rope. Macwhyte Co., Kenosha, Wis.
KING—Hose couplings and clamps. Dixon Valve & Coupling Co., Philadelphia, Pa.
KING—Leather belting and packing. Detroit Oak Belting Company, Detroit, Mich.
KING OF CLAMPS — Hose clamps. Clamps, Inc., Brooklyn, N. Y.
KING-CLIP—Gate valves. The Lunkenheimer Co., Cincinnati, Ohio.
KINGHORN—Pump valves. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
KINGS—Axes, hatchets, etc. The Collins Co., Collinsville, Conn.
KIP—Brushes. Midwest Broom Manufacturing Co., Circleville, Ohio.
KISKI—Shovels, spades and scoops. Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
KITE—Tool handles. American Handle Co., Jonesboro, Ark.
KLEEN-KUT—Paste grinding compound and soluble oil. D. A. Stuart Oil Co., Chicago, Ill.
KLEEN-KWALITY KLOTHS — Wiping cloths, etc. Aaron Ferer & Sons, Inc., St. Louis, Mo.
KLEERVU — Gauge glass protectors. Wright-Austin Co., Detroit, Mich.
KLENZO—Washing powder. Ensign Products Co., Cleveland, Ohio.
KLINGERIT—Compressed asbestos, sheet packing and gaskets. U. S. Indestructible Gasket Co., Brooklyn, N. Y.
KLINGTITE—Farm belting. The Goodyear Tire & Rubber Co., Inc., Akron, O.
KLIPLOK—Fuse test and ground clamps. Trico Fuse Mfg. Co., Milwaukee, Wis.
KNIFE HANDLE—Wrenches. Bemis & Call Co., Springfield, Mass.
KNIGHT—Portable saw mills and saw mill equipment. The Kent Machine Co., Cuyahoga Falls, Ohio.
KLOSE-KUT—Hack saws. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
KNO-LEAK—Pipe joint cement or compound. Technical Products Co., Pittsburgh, Pa.
KNOT KLIPPER—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
KOERTING—Jets. Schutte & Koerting Co., Philadelphia, Pa.
KOHINOOR—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
KONGO—Brooms. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
KONCREX—Cement floor paint. A. C. Horn Co., Long Island City, N. Y.
KONTAX-CHROME — Leather belting. Geo. Rahmann & Co., New York, N. Y.
KOPS—Mask face piece. Mine Safety Appliances Co., Pittsburgh, Pa.
KORODLESS—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
KORTLANDT—Rubber belting, packing and tubing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
KROMAX — Leather packings. Watson-Stillman Co., Roselle, N. J.
KROME—Belting, belt butts, lace leather, cut lacing, packing discs, leather check valves, plunger washers, fan belts, etc. The Chicago Rawhide Mfg. Co., Chicago.
KROMEPATCH—Dry chrome ore cement. E. J. Lavino & Co., Philadelphia, Pa.
KROMIDE—Red lead preservative. A. C. Horn Co., Long Island City, N. Y.
KROMOKE-COMBINATION — Leather belting. Geo. Rahmann & Co., New York.
KRONA—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
KRUMITE—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
KWART-KWICK—Barrel pumps. Viking Pump Co., Cedar Falls, Iowa.
KWIK-KUT—Power hack saw machine. E. C. Atkins and Co., Indianapolis, Ind.
KYMOI—Rubber packing. Crandall Packing Co., Palmyra, N. Y.

L

L. A.—Electric motors and generators. The Louis Allis Co., Milwaukee, Wis.
L & N—Electrical measuring instruments, furnaces, etc. Leeds & Northrup Co., Philadelphia, Pa.
LP—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
L-R—Flexible couplings. Lovejoy Tool Works, Chicago, Ill.
L.R.D.—Bronze valves. Grinnell Co., Inc., Providence, R. I.
LX COMPOSITION — Wire belt lacing. Manufacturers' Belt Hook Co., Chicago.
L-XX—High speed tool bits. Ludlum Steel Co., Watervliet, N. Y.
LA FRANCE—Fire department and safety supplies. American-LaFrance and Foamite Corp., Elmira, N. Y.
LACROSSE—Belting. Goodall Rubber Co., Philadelphia, Pa.
LADLE BRONZE—Bearing or babbitt metal. Monarch Metal Co., Chicago, Ill.
LAIDLAW—Air, gas and ammonia compressors. Worthington Pump and Machinery Corp., Harrison, N. J.
LAMINUM—Shims. Laminated Shim Co., Inc., Long Island City, N. Y.
LANDAHL—Back stops, conveyor. Fairfield Engineering Co., Marion, Ohio.
LANE—Door hangers, tackle blocks and overhead carrier systems, etc. Lanebro Manufacturing Co., Inc., Poughkeepsie, N. Y.
LANGDON—Mitre boxes. Millers Falls Co., Greenfield, Mass.
LANO FINISH—Leather belt dressing. F. Raniville Co., Grand Rapids, Mich.
LAPARCO—Packings. J. S. Latta Packing & Rubber Co., Philadelphia, Pa.
LARSON'S — Babbitt metal. National Bearing Metals Corp., St. Louis, Mo.
LAWN TRIMMER — Worcester Lawn Mower Co., Worcester, Mass.
LAWSON—Wood pulleys, hand trucks and paper mill supplies. Menasha Wood Split Pulley Co., Menasha, Wis.
LAY-SET—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
LE PAGE'S—Glue. Russia Cement Co., Gloucester, Mass.
LEA-SIMPLEX—Saws. The Earle Gear & Machine Co., Philadelphia, Pa.
LEADER—Die stocks. Oster-Williams, Cleveland, Ohio.
LEADER—Sand suction and steam hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
LEADER—Soldering sets. Wm. L. Barrett Co., Bristol, Conn.
LEADER—Torches. The Toledo Pressed Steel Co., Toledo, Ohio.
LEATHER-TO-METAL—Belting cement. F. Raniville Co., Grand Rapids, Mich.
LEBANCO—Carriage, machine and lag bolts. The Lamson & Sessions Co., Cleveland, Ohio.
LECOOK—Rod packing. C. Lee Cook Manufacturing Co., Inc., Louisville, Ky.
LECTROGRINDER — Swing frame grinder. Pittsburgh Engineering Works, Pittsburgh, Pa.
LEECHBURG — Shovels, spades and scoops. Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
LEHIGH—Leather belting. Charles Bond Co., Philadelphia, Pa.
LEN MAR — Water and steam proof leather belting. Jerry Bros. Belting Co., Richmond, Va.
LENOX—Conveyor belting Russell Manufacturing Co., Middletown, Conn.
LENOX—Fire hose. New York Belting & Packing Co., Passaic, N. J.
LENOX—Hack and band saws, screw drivers and glass cutters. American Saw & Mfg. Co., Springfield, Mass.
LERING—Factory trucks. The Hamilton Caster & Mfg. Co., Hamilton, Ohio.
LEVIATHAN — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
LEVOLIER — Switch brackets. McGill Manufacturing Co., Valparaiso, Ind.
LEWIS—Flow detectors. Central Automatic Sprinkler Co., Philadelphia, Pa.
LEY-BUSHED — Chain. Link-Belt Co., Chicago, Ill.
LIBERTY—Drinking fountain equipment. Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
LIBERTY—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
LIBERTY—Protective paints and roof coatings. Carter Paint Co., Liberty, Ind.

UMI

LIBERTY MOTOR GENUINE — Motor bearing metal. Federated Metals Corp., New York, N. Y.
LIFE-TIME—Belt idlers. Fairfield Engineering Co., Marion, Ohio.
LIFETIME — Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
LIFETIME — Welding torches. Smith Welding Equipment Corp., Minneapolis, Minn.
LIFT — Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LIGHTNING—Belting. Home Rubber Co., Trenton, N. J.
LIGHTNING—Hose clamps. Harrisburg Stamping Co., Harrisburg, Pa.
LIGHTNING—Hose couplings. Handlan-Buck Mfg. Co., St. Louis, Mo.
LIGHTNING—Small and machine tools. Greenfield Tap & Die Corp, Greenfield, Mass.
LIGHTNING — Snow pushers. Wirt & Knox Mfg. Co., Philadelphia. Pa.
LIGHTWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
LIMESTONE—Wood split and wood motor pulleys. Ohio Valley Pulley Works, Inc., Maysville, Ky.
LINCWELD—Motors. The Lincoln Electric Co., Cleveland, Ohio.
LINE OF MINE — Packings. New York Belting & Packing Co., Passaic, N. J.
LINE PIPE—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
LINK STAR—Tool handles. O. P. Link Handle Co., Salem, Ind.
LION—Conveyor belts. Link-Belt Co., Chicago, Ill.
LION—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
LION—Hose valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LION PAW—Solid woven cotton and fabric belting. Buckner Process Co., Worcester, Mass.
LIONITE—Abrasive grains and grinding compound. General Abrasive Co., Inc., Niagara Falls, N. Y.
LIQUIDIZED TILE — Interior factory paint. Ensign Products Co., Cleveland, Ohio.
LISTOBESTOS — Asbestos listings and tapes. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
LITH—Insulating slab. Union Fibre Sales Co., Winona, Minn.
LITTLE BLACKSMITH (THE)—Punches, shears and angle iron cutters. J. F. Kidder Mfg. Co., Inc., Burlington, Vt.
LITTLE CUT UP—Electric jig saw. Beebe Bros., Seattle, Wash.
LITTLE DALLETT—Surfacer. The Dallett Co., Philadelphia, Pa.
LITTLE GIANT—Clamp fixtures. Adjustable Clamp Co., Chicago, Ill.
LITTLE GIANT—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
LITTLE GIANT—Farrier's tool boxes. B. B. Noyes Co., Greenfield, Mass.
LITTLE GIANT — Hand bench shears. Mohn Machine Co., Reading, Pa.
LITTLE GIANT—Hydraulic presses. The Cardwell Machine Co., Richmond, Va.
LITTLE GIANT—Hydraulic pressure test pump. The Deming Co., Salem, Ohio.
LITTLE GIANT—Lanterns. R. E. Dietz Co., New York, N. Y.
LITTLE GIANT—Pneumatic and electric tools. Chicago Pneumatic Tool Co., New York, N. Y.
LITTLE GIANT—Punches, shears and combined tools. T. J. Gundlach Machine Co., Belleville, Ill.
LITTLE GIANT—Screw plates. Greenfield Tap & Die Corp., Greenfield, Mass.
LITTLE GIANT—Small and machine tools. Greenfield Tap & Die Corp., Greenfield, Mass.
LITTLE WIZARD—David Round & Son, Cleveland, Ohio.
LITTLE WIZARD—Lanterns. R. E. Dietz Co., New York, N. Y.
LIVE OAK—Leather belting. The Eagle Counter & Leather Co., Cincinnati, Ohio.
LIVE OAK—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
LOCK LINK—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
LOCKWOVEN—Stitched solid woven belting. The American Belting Companies, Baltimore, Md.
LOCUST—Leather belting. W. S. Nott Co., Minneapolis, Minn.
LODI—Belt punches. The Wm. Schollhorn Co., New Haven, Conn.
LOK CROWNER—Bolt, nut and screw caps and metal rosettes. The Rawplug Co., Inc., New York, N. Y.
LONG LIFE—Hose. Whitehead Bros. Rubber Co., Trenton, N. J.
LONG LIFE—Turned hardwood products. Lignum-Vitæ Woodturning Co., Inc., Jersey City, N. J.
LONGLIFE—Belting. The B. F. Goodrich Co., Akron, Ohio.
LOONTEE—Sander brushes. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
LOSANT—Conveyor belting, hose and diaphragm sheet packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
LOTENS—Grinding wheels. Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
LOTUS—Babbitt metal. Lumen Bearing Co., Buffalo, N. Y.
LOW DOWN—Tank and spray pumps. The F. E. Myers & Bros. Co., Ashland, Ohio.
LOXON—Wire lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
LUBALL—Lubricant. Crandall Packing Co., Palmyra, N. Y.
LUBRA—Gaskets, packing, washers, etc. Western Packing & Supply Co., Chicago, Ill.
LUBRI HIDE—Gear lubricant. The Chicago Rawhide Mfg. Co., Chicago, Ill.
LUBRI-TASGON — Lubricating oil. The Wilbur & Williams Co., Boston, Mass.
LUBRICO—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, Ohio.
LUBRICO PREMIER—Bronze bars. The Buckeye Brass & Mfg. Co., Cleveland, O.
LUBRIGUN—Power lubrication equipment. Alemite Corp., Chicago, Ill.
LUBRITE — Self lubricating bushings. Merriman Bros., Inc., Boston, Mass.
LUBROSEAL—Rubber lubricating and sealing compound. The B. F. Goodrich Co., Akron, Ohio.
LUBROTITE—Valves. Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
LUMINO — Aluminum Paint. Koppers Products Co., Pittsburgh, Pa.
LUMMIT—Copper asbestos gaskets. Akron Metallic Gasket Co., Akron, Ohio.
LUMNITE—White interior factory paint. The Reardon Co., St. Louis, Mo.
LUNAR—Paint. Otley Paint Mfg. Co., Chicago, Ill.
LUZERNE—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LYMPIC GREEN STRAND—Wire rope. Hazard Wire Rope Co., Wilkes-Barre, Pa.
LYNX — Belting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
LYONORE—Metal products. Lyon Conklin & Co., Inc., Baltimore, Md.
LYTESTRONG—Steel shaft hangers. Bond Foundry and Machine Co., Manheim, Pa.

M

M—Leather belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
McC. SPECIAL—Leather belting. McCauley Belting Co., Chicago, Ill.
McCAFFREY—Files. Nicholson File Co., Providence, R. I.
McCLELLAN—Files. Nicholson File Co., Providence, R. I.
McL—Leather belting. F. W. Lanathan & Son, Lawrence, Mass
M.B.C. — Swing check valves. Messmer Brass Co., St Louis, Mo.
M. D. CO.—Rotary pumps. Mechanical Devices Co., Bloomington, Ill.
M J L—Flow indicators, regulators, etc. Morey & Jones, Ltd., Los Angeles, Calif.
MIF—Pipe fittings and pole line hardware. Malleable Iron Fittings Co., Branford, Conn.
MLP—Packing. Michigan Leather Packing Co., Inc., Detroit, Mich.
M & M—Boiler feeders and water level regulators. McDonnell & Miller, Chicago, Ill.
M & M—Hogs, chippers and shredders. Mitts and Merrill, Saginaw, Mich.
M-P—Washers. The Master Products Co., Cleveland, Ohio.
M-R-C—Thrust ball bearings. Gurney Division, Marlin-Rockwell Corp., Jamestown, N. Y.
M-S-A—Safety equipment. Mine Safety Appliances Co., Pittsburgh, Pa.
McDANIEL—Valves, strainers, regulators, etc. Watson & McDaniel Co., Philadelphia, Pa.
McFEELY—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
McGREGOR—Gauge glasses. A. W. Chesterton Co., Boston, Mass.
McKIM—Gaskets. McCord Radiator & Mfg. Co., Detroit, Mich.
McKNIGHT — Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
McWANE—Cast iron pipe. Pacific States Cast Iron Pipe Co., Provo, Utah.
MAC-IT—Screws and bolts. The Strong, Carlisle & Hammond Co., Cleveland, O.
MACHINEBRONZE — Bearing bronze. Lumen Bearing Co., Buffalo, N. Y.
MACK—Rivet set clips. Lovejoy Tool Works, Chicago, Ill.
MACOAK — Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.
MAFORCO—Steel trucks, racks, etc. Market Forge Co., Everett, Mass.
MAGAZINE — Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
MAGIC—Garden and water hose and rod packings. New York Belting & Packing Co., Passaic, N. J.
MAGNET—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
MAGNUS—Hose. Hewitt Rubber Corp., Buffalo, N. Y.
MAHR — Industrial furnaces. Diamond Iron Works, Inc., Minneapolis, Minn.
MAJESTIC—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
MAJOR—Lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
MAKE-SHUR—Thread button set, for making blind holes. National Machine Tool Co., Racine, Wis.
MALABAR — Conveying and elevating belting. The Hettrick Mfg. Co., Toledo, Ohio.
MALTESE CROSS—Conveyor belting and hose. Hewitt Rubber Corp., Buffalo, N. Y.
MAN SIZE—Steam traps. The V. D. Anderson Co., Cleveland, Ohio.
MANATI—Waterproof leather belting. J. Bachmann & Co., Inc., New York, N. Y.
MANGANAL — Electrodes and welding rods. Stuly-Sickles Co., Newark, N. J.
MANGANWELD—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
MANIERRE—Box car loaders. Link-Belt Co., Chicago, Ill.
MANTEX — Fire hose. The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J.
MARATHON BRAND—Wipers, waste, etc. G. Mathes Co., St. Louis, Mo.
MARCO—Belting, hose, dredging sleeves, friction and splicing tape. The Mechanical Rubber Co., Passaic, N. J.
MARINE — Brass and bronze bushings. Prier Brass Mfg. Co., Kansas City, Mo.
MARINE — Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
MARINE — Waterproof leather belting. McCauley Belting Co., Chicago, Ill.
MARINE GENUINE—Babbitt. Gardiner Metal Co., Chicago, Ill.
MARK—Carriage and machinists' clamps. Adjustable Clamp Co., Chicago, Ill.
MARKERILL—Marking devices. Henry Moss & Co., Inc., Brooklyn, N. Y.
MARSH-CAPRON—Concrete mixers and contractors' portable saw tools. Construction Machinery Co., Waterloo, Iowa.
MARTELL—Adjustable reamers. Taft-Pierce Mfg. Co., Woonsocket, R. I.
MARVEL—Exhausters and exhaust fans. Electric Blower Co., Boston, Mass.
MARVEL—Grinders. Chicago Pulley & Shafting Co., Chicago, Ill.
MARVEL—Hack and band saw machines and blades, hole saws, punches and shears, tapping machines, hack saw frames, drill press vises, etc. Armstrong-Blum Mfg. Co., Chicago, Ill.
MARVEL—Oil pumps. The Lunkhenheimer Co., Cincinnati, Ohio.
MARVEL — Pumps and water systems. The Deming Co., Salem, Ohio.
MARVEX—Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
MASCO—Mops, wiping cloths, waste, etc. Massasoit Mfg. Co., Fall River, Mass.
MASON—Condensation meters. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
MASSACHUSETTS — Fans, blowers and unit heaters. The Bishop & Babcock Sales Co., Cleveland, Ohio.
MASTER—Drilling machines. Superior Machine Tool Co., Kokomo, Ind.
MASTER—Friction clutches and hoists. Moore-Master Mfg. Co., Chicago, Ill.
MASTER—Hand tool grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
MASTER—Pin pattern coping saws and hack saws. W. O. Barnes Co., Inc., Detroit, Mich.
MASTER—Hose, belting, etc. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
MASTER—Mixers. Construction Machinery Co., Waterloo, Iowa.
MASTER — Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
MASTER—Wire wheel brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
MASTER ANTIFRICTION — Babbitt metal. Murphy Metals Co., Chicago, Ill.
MASTER METAL—Babbitt. United American Metals Corp., Brooklyn, N. Y.
MASTER PILOT—Iron body gate valves. The Wm. Powell Co., Cincinnati, Ohio.
MASTER ROTARY SCRAPER — Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
MASTER STILLSON — Pipe wrenches. Walworth Co., New York, N. Y.
MASTER TOOLMAKER—Drill press attachment. C. C. Craley Mfg. Co., Shillington, Pa.
MASTERENCH — Pipe and ratchet wrenches. Heller Bros. Co., Newark, N. J.
MATCHIT — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.

MATCHLESS — I-beam trolleys. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
MATHER—Flexible couplings. Charles Bond Co., Philadelphia, Pa.
MAUREY—Steel V pulleys. Up-to-Date Machine Works, Inc., Chicago, Ill.
MAUREYPREST—Steel V pulleys. Up-to-Date Machine Works, Inc., Chicago, Ill.
MAXECON—Belting and hose. The B. F. Goodrich Co., Akron, Ohio.
MAXI-MOTOR—Tool part grinders. Luther Grinder & Tool Co., Milwaukee, Wis.
MAXTIC—Rubber belt dressing. Norton Belting Co., Wellesley Hills, Mass.
MAYARI—Track bolts. Bethlehem Steel Co., Bethlehem, Pa.
MAYFLOWER — Marine oakum. The Hooven & Allison Co., Xenia, Ohio.
MAZDA CLIMAX — Oil burners. E. L. Miller Mfg. Co., Kansas City, Mo.
MECHANICAL BLACKSMITH HELPER —Power hammers. Blacker Engineering Corp., New York, N. Y.
MECHANICAL WEIGHMAN — Hopper scales. Merrick Scale Mfg. Co., Passaic, N. J.
MECHANICS' SPECIAL—Hand power tool grinders. Luther Grinder Co., Milwaukee, Wis.
MECO — Burners, conveyors, hoists, screens, etc. The Manufacturers Equipment Co., Dayton, Ohio.
MECO — Regulators, torches, acetylene generators, etc. Modern Engineering Co., St. Louis, Mo.
MEESECO — Friction clutches, oil well countershafts and short center belt drives. Link-Belt Co., Chicago, Ill.
MERRICK—Wrenches. Bemis & Call Co., Springfield, Mass.
MERRIMACK — Leather belting. Page Belting Co., Concord, N. H.
MERUCO — Compressed asbestos sheet packing. The Mechanical Rubber Co., Passaic, N. J.
MESABA—Chain. S. G. Taylor Chain Co., Hammond, Ind.
METALBAC—Metal gasket design. Victor Mfg. & Gasket Co., Chicago, Ill.
METALBESTOS—Piston packing. A. W. Chesterton Co., Boston, Mass.
METALITE—Sand cloth. Behr-Manning Corporation, Troy, N. Y.
METALLIC—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
METALUTE—Furnace cement and waterproofing compounds and paints. Technical Products Co., Pittsburgh, Pa.
METRIC — Mechanical packing. Hewitt Rubber Corp., Buffalo, N. Y.
METROPOLITAN — Injectors. Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
MEXIKOMO—Fire brick mortar. A. P. Green Fire Brick Co., Mexico, Mo.
MEXKO—Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
MEXOLINE—Metal polishes. Matchless Metal Polish Co., Chicago, Ill.
MEY-OBORN—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, O.
MEZZO — Drills. The Cleveland Twist Drill Co., Cleveland, Ohio.
MIAMI—Elevator belting. New York Belting & Packing Co., Passaic, N. J.
MIAMI—Oil cups. The Lunkhenheimer Co., Cincinnati, Ohio.
MIBCO—Cast iron threaded pipe. Medina Iron & Brass Co., Medina, N. Y.
MICHIGAN—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
MICRO-SET—Saw tables and bench saws. Delta Mfg. Co., Milwaukee, Wis.
MIDGET—Clutches. The Carlyle Johnson Machine Co., Manchester, Conn.
MIDGET—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
MIDGET—Portable electric grinders. Dumore Co., Racine, Wis.
MIDGET—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
MILECO—Brake lining and blocks and clutch facings. L. J. Miley Co., Inc., Chicago, Ill.
MIL FLEX and **MIL FLEX MIDGET**—Hack saw blades and frames. The Henry G. Thompson & Son Co., New Haven, Conn.
MILFORD—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
MILL WRIGHT—The Rich Pump and Ladder Co., Cincinnati, Ohio.
MILLER LOCK TITE — Truck brakes. Safety Truck Brake Co., Inc., Appleton, Wis.
MILVACO—Brass valves and heating specialties, Milwaukee Valve Co., Milwaukee, Wis.
MINE SERVICE—Air cocks. The Lunkenheimer Co., Cincinnati, Ohio.
MINNEAPOLIS — V-buckets. Link-Belt Co., Chicago, Ill.
MIRCS — Burners and furnaces. R. S. Products Corp., Philadelphia, Pa.
MIRICLEAN—Water softeners. Pacific Chemical Co., Los Angeles, Calif.
MR. PUNCH—Automatic drill tools. Goodell-Pratt Co., Greenfield, Mass.
MITER-SQUARE—Folding rules. Master Rule Mfg. Co., Inc., New York, N. Y.
MIXFLO—Drainage pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
MIXTER CHAMPION—Saw gummer. Ajax Manufacturing Co., Pittsburgh, Pa.
MIZZON—Fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
MOBOLENE — Packings and gaskets. Johns-Manville Sales Corp., New York.
MOCCASIN—Wheelbarrows. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
MOCKING BIRD — Steam whistles. The Lunkenheimer Co., Cincinnati, Ohio.
MODEL—Rubber hose. Mulconroy Co., Inc., Philadelphia, Pa.
MODEL B—Lathes. Pratt & Whitney Co., Hartford, Conn.
MODEL STAR—Valves. The Wm. Powell Co., Cincinnati, Ohio.
MODENCO — Winches, strainers and car retarders. Covington Machine Co., Inc., Covington, Va.
MODERN HOME—Ash and garbage cans. The Witt Cornice Co., Cincinnati, Ohio.
MODOC — Belting. Goodall Rubber Co., Philadelphia, Pa.
MOGUL—Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.
MOGUL—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
MOHAWK — Carpenters' tools. Millers Falls Co., Greenfield, Mass.
MOISTAT—Humidifying attachment for saw mills. The National Dry Kiln Co., Indianapolis, Ind.
MOLY—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
MONACO — Drill rods. Pittsburgh Tool Steel Wire Co., Monaca, Pa.
MONARCH BALL METAL—Steel process babbitt. Monarch Metal Co., Chicago, Ill.
MONARCH—Butcher block brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
MONARCH—Hack saws. Great Neck Saw Mfrs., Inc., Great Neck, N. Y.
MONARCH—Lanterns. R. E. Dietz Co., New York, N. Y.
MONARCH — Measuring tapes. Eugene Dietzgen Co., Chicago, Ill.
MONARCH—Piston packing. A. W. Chesterton Co., Boston, Mass.
MONARCH—Polishing wheels. Hanson-Van Winkle-Munning Co., Matawan, N. J.
MONARCH—Power transmission and material handling equipment. Sprout, Waldron & Co., Inc., Muncy, Pa.
MONARCH—Ratchet drills. Keystone Mfg. Co., Buffalo, N. Y.
MONARCH — Tampico wheels, brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
MONARCH — Tool handles. Hartwell Brothers, Memphis, Tenn.
MONARCH — Transmission belting and hose. Hewitt Rubber Corp., Buffalo.
MONARCH—Wire rope slings. Macwhyte Co., Kenosha, Wis.
MONARCH FEATHERWEIGHT—Shovels, spades and scoops. Ames, Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
MONARCH WHYTE STRAND—Wire rope. Macwhyte Co., Kenosha, Wis.
MONITOR—Car pullers. Stephens-Adamson Mfg. Co., Aurora, Ill.
MONITOR—Steel wire wheels. The Osborn Manufacturing Co., Cleveland, Ohio.
MONITOR — Windmills, pumps, pump jacks, etc. Baker Manufacturing Co., Evansville, Wis.
MONO-BILT — Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
MONOBLOCK—Air compressors. Worthington Pump and Machinery Corp., Harrison, N. J.
MONO-BOND—Bond for refractory ganister. Quigley Co., Inc., New York, N. Y.
MONO CAST—Pipe. American Cast Iron Pipe Co., Birmingham, Ala.
MONO LINE—Plastic fire brick. Quigley Co., Inc., New York, N. Y.
MONO-VEYOR—Elevating machinery. The Jeffrey Manufacturing Co., Columbus, O.
MONROVIAN — Water heaters. Coast Heater Manufacturing Co., Monrovia, Calif.
MOON—Grease cups. American Injector Co., Detroit, Mich.
MOORE—I-beam trolleys. Chisholm-Moore Hoist Corp., Tonawanda, N. Y.
MOORE—Elevator buckets, bolts, spiral conveyors and accessories. Link-Belt Co., Chicago, Ill.
MOOSE—Belting, hose and matting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
MORAN'S—Belt couplings. Greene, Tweed & Co., New York, N. Y.
MOTEX—Babbitt metals, bearing bronze and solder. Consolidated Metals Corp., Detroit, Mich.
MOTOR—Garden hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
MOTOR KIT—Pliers. Crescent Tool Co., Jamestown, N. Y.
MOTORFLAKE—Graphite. Superior Flake Graphite Co., Chicago, Ill.
MOTORPUMP—General service pump. Ingersoll-Rand Co., New York, N. Y.
MOUNT GILEAD—Power sprayers. The Hydraulic Press Mfg. Co., Mount Gilead, Ohio.
MOUNT VERNON—Stitched canvas belting. The American Belting Companies, Baltimore, Md.
MULE-PULL—Clutches. Brown Engineering Co., Reading, Pa.
MULTI-FLAME—Flame torches and fire pots. Clayton & Lambert Mfg. Co., Detroit, Mich.
MULTI-V—Belts. The B. F. Goodrich Co., Akron, Ohio.
MULTI-V-DRIVE—Transmission belting. Worthington Pump & Machinery Co., Harrison, N. J.
MULTIANGULAR — Metallic packing. Northern Metallic Packing Co., St. Paul, Minn.
MULTICORD—Belts. The B. F. Goodrich Co., Akron, Ohio.
MULTIROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.
MULTIPELLOR—Deep well turbine water pumps. Luitwieler Pumping Engine Co., Rochester, N. Y.
MULTIPLE—Drafting instruments. Gilson Slide Rule Co., Stuart, Fla.
MULTIPLEX—Lubricators. Essex Brass Corp., Detroit, Mich.
MULTIPLEX—Ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
MULTIPLEX—Saw for tile, brick, asbestos, etc. Red Star Products Corp., Cleveland, Ohio.
MULTISERVIS — Water level controls. Nason Manufacturing Co., New York.
MULTISOCKET—Wrenches. J. H. Williams & Co., New York, N. Y.
MULTITRIP—Box trucks, etc. G. B. Lewis Co., Watertown, Wis.
MULTO — Ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
MUNICIPAL—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.
MURDOCK — Air compressors and pumps. The Meier Electric & Machine Co., Indianapolis, Ind.
MYSTIC—Lawn sprinklers. W. D. Allen Mfg. Co., Chicago, Ill.

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N B O—Packing hose and pump valves. Home Rubber Co., Trenton, N. J.
N-M-D—(Non-Metallic Disc) Globe, angle, check and quick operating. The Lunkenheimer Co., Cincinnati, Ohio.
N R G—Vertical condensation pumps. Weil Pump Co., Chicago, Ill.
NAIAD—Leather belting and packing. Detroit Oak Belting Co., Detroit, Mich.
NAMCO—Taps and dies. The National Acme Co., Cleveland, Ohio.
NAPIER—Saw blades. Metal Saw & Machine Co., Inc., Springfield, Mass.
NAPIER, JUNIOR — Band saw machines. Metal Saw & Machine Co., Inc., Springfield, Mass.
NARRO-LUBE—Oil tank. Gilbert & Barker Mfg. Co., Springfield, Mass.
NATIONAL — Conveyor belt. Link-Belt Co., Chicago, Ill.
NATIONAL—Pipe, casing, oil well tubing, etc. National Tube Co., Pittsburgh, Pa.
NATIONAL—Portable lamp guards. McGill Manufacturing Co., Valparaiso, Ind.
NATIONAL — Wheelbarrows. Phillips, Doup & Co., Inc., Lindenhurst, Long Island, N. Y.
NATIONAL-SHELBY—Tubing and boiler tubes. National Tube Co., Pittsburgh.
NATIVE—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
NATROCO — Aluminum paint. The National Roofing Co., Tonawanda, N. Y.
NATROCO FACTORY WHITE—Mill white factory interior paint. The National Roofing Co., Tonawanda, N. Y.
NATURAL GRIP—Belt dressing. Chas. A. Schieren Co., New York, N. Y.
NAVAR—Paint. American Asphalt Paint Co., Chicago, Ill.
NAVY SPECIAL—Asbestos piston packing. A. W. Chesterton Co., Boston, Mass.
NAVY SPECIAL—Leather belting. Baltimore Belting Co., Baltimore, Md.
NELLA—Hose cabinets. W. D. Allen Mfg. Co., Chicago, Ill.
NEMO—Asbestos cement. Smith & Kanzler, Inc., Elizabeth, N. J.
NEPAC—Leather belting. Capen Belting & Rubber Co., St. Louis, Mo.
NEPTUNE — Hose. Goodall Rubber Co., Philadelphia, Pa.

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NEPTUNE DYNAMO — Leather belting. Graton & Knight Co., Worcester, Mass.
NEVA STAIN — Stainless steel. Ludlum Steel Co., Watervliet, N. Y.
NEVABUST — Screws, bolts and nuts. Rochester Machine Screw Co., Rochester, N. Y.
NEVER DRIP—Tapers. Columbia Wax Works, Ozone Park, N. Y.
NEVER SLIP—Lock washers. National Umbrella Frame Co., Germantown, Philadelphia, Pa.
NEVERBREAK—Lace leather and chrome belt lacing. California Tanning Co., St. Louis, Mo.
NEVERFAIL—Lubricators. American Injector Co., Detroit, Mich.
NEVERLEAK—Garden hose. The Mechanical Rubber Co., Passaic, N. J.
NEVERSLIP—Grease cups. American Injector Co., Detroit, Mich.
NEVERSLIP—Leather belting. Page Belting Co., Concord, N. H.
NEVERTIP—Trucks. The Excelsior Plimptruck Co., Stamford, Conn.
NEW BRITAIN—Drill chucks. Union Mfg. Co., New Britain, Conn.
NEW ALERT — Force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
NEW BADGER SLIP PROOF—Car movers. Advance Car Mover Co., Inc., Appleton, Wis.
NEW CASTLE — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
NEW EASY—Bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.
NEW EMPIRE—Speed indicators. Greene, Tweed & Co., New York, N. Y.
NEW ECLIPSE—Tapping machines. Hays Manufacturing Co., Erie, Pa.
NEW LIFE—Belt dressing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
NEW MULESKIN—Leather aprons. California Tanning Co., St. Louis, Mo.
NEW-NEVER-SLIP—Car movers. Appleton-Atlas Car Mover Corp., Milwaukee.
NEW PRINCIPLE—Floor flanges. Moore Flange Corp., New York, N. Y.
NEW PROCESS — Cotton covered rubber hose. Mulconroy Co., Inc., Philadelphia.
NEW STYLE PAULUS—Track drills. Tallman Manufacturing Co., Shelbyville, Ill.
NEW TYPE—Oil tank wagon hose. Goodall Rubber Co., Philadelphia, Pa.
NEWMAN—Portable watchman's clocks. Detex Watchclock Corp., Chicago, Ill.
NEWTON—Milling machines, rotary planers, rail drills, etc. Consolidated Machine Tool Corp. of America, Rochester, N. Y.
NEWTYPE—Boots. Goodall Rubber Co., Philadelphia, Pa.
NEWTYPE—Fire hydrants and water gate valves. The Kennedy Valve Mfg. Co., Elmira, N. Y.
NIAGARA—Bolts. Buffalo Bolt Co., North Tonawanda, N. Y.
NIAGARA—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
NIAGARA—Emery. Keystone Emery Mills, Philadelphia, Pa.
NIAGARA—Flat leather belting. Johnson Belting Co., New York, N. Y.
NIAGARA—Water, hot water and oil meters, strainers and air release valves. Buffalo Meter Co., Buffalo, N. Y.
NICE—Bearings. Boston Gear Works, Inc., North Quincy, Mass.
NICHROME—Dipping baskets. The W. S. Tyler Co., Cleveland, Ohio.
NICKEL STEEL BRAND—Saws and saw blades. Frank W. Swett & Son, Chicago.
NIGHT DRESS—Belt dressing. F. Raniville Co., Grand Rapids, Mich.
NIGRUM—Oilless wood bearings. Bound Brook Oilless Bearing Co., Bound Brook, N. J.
NIKOLIME—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
NIKROME—Alloy steel. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
1916—Ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
NITE DRESS—Belt dressing. F. Raniville Co., Grand Rapids, Mich.
NITRALLOY—Alloy steel. Ludlum Steel Co., Watervliet, N. Y.
NO-LEAK—Apron conveyors. Link-Belt Co., Chicago, Ill.
NO WASTE—Roving cans. Fibre Specialty Mfg. Co., Kennett Square, Pa.
NOBIND—Marine stuffing boxes. The Upson-Walton Co., Cleveland, Ohio.
NOBLEWEST — Marking and numbering machines, marking dies and steel stamps. The Noble & Westbrook Mfg. Co., East Hartford, Conn.
NOCO BRAND—Leather belting, valves, pump, leather washers, etc. W. S. Nott Co., Minneapolis, Minn.
NOC-OUT—Hose clamp. Wittek Mfg. Co., Chicago, Ill.
NOELTING — Casters. Faultless Caster Corp., Evansville, Ind.
NOGALD—Wire. The Youngstown Sheet and Tube Company, Youngstown, Ohio.
NOKORODE—Solder. The M. W. Dunton Co., Providence, R. I.
NOKOROS—Unions. Illinois Malleable Iron Co., Chicago, Ill.
NOLAP—Abrasive sleeves and belts. The Cleveland Container Co., Cleveland, Ohio.
NON-BREAKABLE—Hack saw blades. E. C. Atkins and Co., Indianapolis, Ind.
NON-GRAN—Bronze. American Non-Gran Bronze Corp., Berwyn, Pa.
NON KINK—Cord garden hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
NONLINK POSITIVE — Spring washers and nut locks. The Positive Lock Washer Co., Newark, N. J.
NON-PULSATING — Deep well duplex water pumps. Luitwieler Pumping Engine Co., Rochester, N. Y.
NON-SKID—Screw drivers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
NOPAK—Valves. Galland-Henning Manufacturing Co., Milwaukee, Wis.
NONPAREIL — Generator valves. The Lunkenheimer Co., Cincinnati, Ohio.
NORBIDE—Carbide abrasive. Norton Co., Worcester, Mass.
NORKA—Automobile radiator hose and sheet packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
NORKA—Road scrapers. The General Wheelbarrow Co., Cleveland, Ohio.
NORTHWIND—Electric desk fans. The Emerson Electric Mfg. Co., St. Louis, Mo.
NORWOOD—Garden and water hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
NORTON—Jacks. The Duff-Norton Mfg. Co., Pittsburgh, Pa.
NORWICH—Nail and ball pean hammers. David Maydole Tool Corp., Norwich, N. Y.
NOXALL—Lace leather and cut lacings. The Chicago Rawhide Mfg. Co., Chicago, Ill.
NU-AIR—Exhaust fans. The Meier Electric & Machine Co., Indianapolis, Ind.
No. 8372—Brattice cloth. Upson-Walton Co., Cleveland, Ohio.
No. 1854—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
No. 5071—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
No. 9626—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
No. 2098—Brattice cloth. The Upson-Walton Co., Cleveland, Ohio.
NUGGET—Round leather belting. Graton & Knight Co., Worcester, Mass.
NU GRIP—Tinners' snips and shears. J. Wiss & Sons Co., Newark, N. J.
NUTATE — Telltale flexible staybolts. Flannery Bolt Co., Pittsburgh, Pa.
NUXALL — Boiler flue and tube cleaner. Pacific Chemical Co., Los Angeles, Calif.

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O. E.—Expansion bolt shield. Arro Expansion Bolt Co., Marion, Ohio.
O-TITE—Welding and brazing compounds. A & C Laboratories, Ridgefield, N. J.
OIC—Valves. Ohio Injector Co., Wadsworth, Ohio.
O.I.M.—Packing. Home Rubber Co., Trenton, N. J.
O.K.—Bolt clippers, chain cutters and nut splitters. H. K. Porter, Inc., Everett, Mass.
O. K.—Door hangers and hay unloaders. The F. E. Myers & Bro. Co., Ashland, O.
OK—Electric motors, fans, grinders, buffers, etc. Marathon Electric Mfg. Co., Wausau, Wis.
O. K.—Nail sets, center, prick and drive pin punches. Millers Falls Co., Greenfield, Mass.
OK—Sight Feed lubricators. American Injector Co., Detroit, Mich.
O K—Small and machine tools. Greenfield Tap & Die Corp., Greenfield, Mass.
OK—Steam specialties. Kitts Steam Specialty Co., Inc., Oswego, N. Y.
O. P. B.—Oilless peg bearings. Mechanical Devices Co., Bloomington, Ill.
OAK — Leather packings. Michigan Leather Packing Co., Detroit, Mich.
OAKEN—Belting. Whitehead Bros. Rubber Co., Trenton, N. J.
OAKWOOD — Leather belting. Baldwin Belting & Leather Co., Inc., New York, N. Y.
OBERG (C. O.) BRAND—Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
OBSTITCHED — Stitched canvas belting. The American Belting Companies, Baltimore, Md.
OCTOLE—Nail hammers. David Maydole Tool Corp., Norwich, N. Y.
OIL BATH—Power pumps. Dean Brothers Co., Indianapolis, Ind.
OIL-RITE — Pumps and water systems. The Deming Co., Salem, Ohio.
OIL TYPE—Pulley clutches and cut-off couplings. Kinney Manufacturing Co., Boston, Mass.
OILPUL—Pumping and drilling (oil field) belting. The Hettrick Mfg. Co., Toledo, Ohio.
OIM—(ON ITS MERIT)—Packing. Home Rubber Co., Trenton, N. J.
OIL PAC—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
OILTITE—Sheet packing. Jenkins Bros., New York, N. Y.
OKEH—Steel tapes. Keuffel & Esser Co., Hoboken, N. J.
OKO BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
OKTAGONALS (Corley Oktagonals) — Unions. The Corley Co., Jersey City, N. J.
OLD DUTCH PROCESS — White lead. Sherwin-Williams Co., Cleveland, Ohio.
OLD CROW—Sheet and piston packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
OLD GLORY—Belting. Home Rubber Co., Trenton, N. J.
OLD GOLD—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
OLD HICKORY—Tool handles. Hartwell Brothers, Memphis, Tenn.
OLD HONESTY—Paint. Goheen Corporation of New Jersey, Newark, N. J.
OLD RELIABLE—Babbitt metal. Murphy Metals Co., Chicago, Ill.
OLD RELIABLE—Steam joint cement. Geo. Callahan & Co., New York, N. Y.
OLD TIMER—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
OLDHAM — Pneumatic tools. Chicago Pneumatic Tool Co., New York, N. Y.
OLOTAN—Rounded leather belting and "V" belt. F. Raniville Co., Grand Rapids, Mich.
OLYMPUS—Gauge locks. Nason Manufacturing Co., New York, N. Y.
ONEGA—Valve tools. Stevens Walden, Inc., Worcester, Mass.
ONEIDA—Drill chucks. Westcott Chuck Co., Oneida, N. Y.
ONEIDA TYPE — Steel split pulleys. Dodge Manufacturing Corp., Mishawaka, Ind.
OPTO MATIC OILER—Trico Fuse Mfg. Co., Milwaukee, Wis.
ORANGEBURG — Underground duct. Johns-Manville Sales Corp., New York, N. Y.
ORGAN—Grease cups. Keystone Lubricating Co., Philadelphia, Pa.
ORIGINAL — Expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
ORIOLE—Round leather belting and lace leather. I. B. Williams & Sons, Dover, N. H.
ORIOLE—Small home garage vises. The Charles Parker Co., Meriden, Conn.
ORO—Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
OSAGE — Belting. Goodall Rubber Co., Philadelphia, Pa.
OSHKOSH—Logging and pole line construction tools, shovels and spoons. Leach Co., Oshkosh, Wis.
OT-STEEL—Steel factory, school, office and garage equipment. Angle Steel Stool Co., Plainwell, Mich.
OUTINGLAS—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
OVAL FINE WIRE and **SPIRAL**—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
OVALHOLE—Hollow center packing. The Hollow Center Packing Co., Cleveland, Ohio.
OVER-THE-TOP—Belt dressing. Magic Leather Treatment Co., Detroit, Mich.
OVER-WAY—Conveying systems. Richards-Wilcox Mfg. Co., Aurora, Ill.
OVERCOAT — Stitched canvas belting. Main Belting Co., Philadelphia, Pa.
OWL—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
OWL—Tool handles. American Handle Co., Jonesboro, Ark.
OXHIDE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
OXIDIZED CARBON CEMENT—Paint. Goheen Corporation of New Jersey, Newark, N. J.
OXWELD — Welding and cutting equipment. The Linde Air Products Co., New York, N. Y.
OZARK—Fire clay brick. A. P. Green Fire Brick Co., Mexico, Mo.
OZARK—Water filters. E. L. Miller Mfg. Co., Kansas City, Mo.

P

P & B—Industrial paints. The Paraffine Companies, Inc., San Francisco, Calif.
P & B—Insulating tape and compounds. The Ruberoid Co., New York, N. Y.
P.B.H.—Water gauges, cocks, glass protectors, stoking tools, boiler cement, etc. Paul B. Huyette Co., Inc., Philadelphia, Pa.
P&H—Electric overhead traveling cranes, hoists, etc. Harnischfeger Corp., Milwaukee, Wis.

UMI

P-K—Screws. Parker-Kalon Corp., New York, N. Y.
P. I. V. GEAR—Variable speed transmissions. Link-Belt Co., Chicago, Ill.
P. L. C.—Lubricants, metal polish, boiler metal treatment, etc. Patterson Lubricating Co., Boston, Mass.
P. O. B.—Paper oilless bearings. Mechanical Devices Co., Bloomington, Ill.
PABCO—Paints, roofings and floor coverings. The Paraffine Companies, San Francisco, Calif.
PACEMAKER — Belting and dredge sleeves. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
PACEMAKER — Coal shovels. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
PACIFIC—Belt and hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
PACTITE—Metal shredded packing. Federal Metallic Packing Co., Wakefield, Mass.
PAGET—Water heaters, boiler tube cleaners, etc. Self Cleaning Strainer Co., Chicago, Ill.
PAINT O'MISTER — Portable electric spray units. Simplex Spray Equipment Co., Chicago, Ill.
PAINTERS PRIDE—The Rich Pump and Ladder Co., Cincinnati, Ohio.
PALISADE—Hose. New York Belting & Packing Co., Passaic, N. J.
PALLADIUM — Hose. The Mechanical Rubber Co., Passaic, N. J.
PALMETTO—Solid woven cotton belting. Victor Balata & Textile Belting Co., New York, N. Y.
PALMETTO — Steam packing. Greene, Tweed & Co., New York, N. Y.
PALMGREN—Vises, chucks, boring heads and tool holders. Chicago Tool & Engineering Co., Chicago, Ill.
PANAMA—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PANSAR—Files. Sandvik Saw & Tool Corp., Minneapolis, Minn.
PANTHER—Rubber and friction tapes. The Okonote Co., Passaic, N. J.
PARA—Hose. New York Belting & Packing Co., Passaic, N. J.
PARA FLAX—Packing. New York Belting & Packing Co., Passaic, N. J.
PARABOLIC—Milling cutters. National Twist Drill & Tool Co., Detroit, Mich.
PARADOX — Adjustable reamers. The Cleveland Twist Drill Co., Cleveland, O.
PARAGON — Belt punches. The Wm. Schollhorn Co., New Haven, Conn.
PARAGON—Die stocks and screw plates. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
PARAGON — Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
PARAGON—Hand elevators. The Storm Manufacturing Co., Newark, N. J.
PARAGON—Spray pumps. The Campbell-Hausfeld Co., Harrison, Ohio.
PARAGON — Ventilating fans. Bendix Products Corp., South Bend, Ind.
PARAMOUNT—Band saws and knives. J. D. Burrill & Son, Ilion, N. Y.
PARAMOUNT—Hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
PARANITE G O P—Oil hose and oil proof composition for use as valve seats, washers, gaskets, etc. The Manhattan Rubber Mfg. Div., of Raybestos-Manhattan, Inc., Passaic, N. J.
PARCO POWDER—Rust proofing. Parker Rust Proof Co., Detroit, Mich.
PARENT STEEL—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
PARKSIDE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
PARMELEE—Pipe wrenches. Walworth Co., New York, N. Y.
PAROCK—Oil-less bearings and hard rubber. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PARONITE—Belting, hose, packing and rings. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PASP—Packing. Home Rubber Co., Trenton, N. J.
PATHFINDER—Farm belting. The Goodyear Tire & Rubber Co., Inc., Akron, O.
PATROL — Portable watchman's clocks. Detex Watchclock Corp., Chicago, Ill.
PAUL—Air guns. Wm. E. Pratt Mfg. Co., Joliet, Ill.
PAUL—Pumps, water softeners, etc. Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
PAVING BREAKERS—Concrete drills. Ingersoll-Rand Co., New York, N. Y.
PAWNEE—Steel grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
PAWNEE—Lace leather, etc. California Tanning Co., St. Louis, Mo.
PAXIT—Packing. Excel Asbestos Mfg. Co., Garwood, N. J.
PAXOL—Sheet packing. The Mechanical Rubber Co., Passaic, N. J.
PAXTITE — Leather packings. Watson-Stillman Co., Roselle, N. J.
PEASE—Glass body oil cups. W. D. Allen Mfg. Co., Chicago, Ill.
PECK—Carriers (power house conveyors). Link-Belt Co., Chicago, Ill.
PEECO — Steam separators and utility strainers. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
PEERLESS—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
PEERLESS—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, O.
PEERLESS—Friction clutches and molding slip flasks. T. B. Wood's Sons Co., Chambersburg, Pa.
PEERLESS—Furnace cement. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
PEERLESS—Gasoline and oily waste cans. Miller Peerless Manufacturing Co., Chicago, Ill.
PEERLESS — Hand screws. Adjustable Clamp Co., Chicago, Ill.
PEERLESS — Reamers. The Cleveland Twist Drill Co., Cleveland, Ohio.
PEERLESS—Spur gear chain hoists. The Harrington Co., Philadelphia, Pa.
PEERLESS — Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
PEERLESS—Tool grinders. Norton Pike Co., Pike, N. H.
PEERLESS—Tool steel. Heller Bros. Co., Newark, N. J.
PEIRCE—Pole line hardware specialties. Hubbard & Co., Pittsburgh, Pa.
PENFLEX—Flexible metallic hose, barrel fillers, etc. Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
PENLO—Engine lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
PENN—Vises. Hollands Mfg. Co., Erie, Pa.
PENN KELLER—Work gloves. Keller Glove Mfg. Co., Plumsteadville, Pa.
PENNTEX—Solid interwoven belt. Victor Balata & Textile Belting Co., New York, N. Y.
PENTEX—Firebrick. Quigley Co., New York, N. Y.
PEORIA—Nozzles. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
PEQUOIT—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
PERFEC-HOLE — Grinding wheel bushings. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
PERFECT — Axes. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
PERFECT—Boiler flue cleaners. L. G. Dolittle, Binghamton, N. Y.
PERFECT — Emery wheel dressers and wrenches. Wm. E. Pratt Mfg. Co., Chicago, Ill.
PERFECT—Gauges. Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
PERFECT—Oil retainers. The Chicago Rawhide Mfg. Co., Chicago, Ill.
PERFECT—Oil seals. The Chicago Rawhide Mfg. Co., Chicago, Ill.
PERFECT—Tool handles. O. P. Link Handle Co., Salem, Ind.
PERFECT—Wire cloth and wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
PERFECT BALANCE—Wire and fiber rotary sections and wire wheels. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
PERFECT CLINCHING—Hose couplings and menders. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
PERFECT EXPANSION—Packing. New York Belting & Packing Co., Passaic, N. J.
PERFECT HANDLE—Monkey wrenches and screw drivers. Trimont Mfg. Co., Roxbury, Boston, Mass.
PERFECT SEAL—Gasket cement. Ideal Commutator Dresser Co., Sycamore, Ill.
PERFECTED—Piano and wire, etc. American Steel & Wire Co., Chicago, Ill.
PERFECTED Z Z—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
PERFECTION—Belting and suction hose and dredging sleeves. Boston Woven Hose & Rubber Co., Cambridge, Mass.
PERFECTION — Box scrapers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
PERFECTION—Brass valves, globe "Y" and gage cocks. Central Valve Co., Chicago, Ill.
PERFECTION—Carriage and machine bolts. The Lamson & Sessions Co., Cleveland, Ohio.
PERFECTION—Cross-cut saws. E. C. Atkins and Co., Indianapolis, Ind.
PERFECTION—Engineers' oilers. Handlan-Buck Mfg. Co., St. Louis, Mo.
PERFECTION—Flax pump packing. Advance Packing & Supply Co., Chicago, Ill.
PERFECTION—Glass cutting boards. The Lufkin Rule Co., Saginaw, Mich.
PERFECTION—Leather belting, dressing and cement. Bonner & Barnewall, Inc., New York, N. Y.
PERFECTION—Pump connections. Stevens Walden, Inc., Worcester, Mass.
PERFECTION—Shears. The W. H. Compton Shear Co., Newark, N. J.
PERFECTION—Steel bar clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
PERFECTION — Steel wool. Albert E. Rinn Co., Allentown, Pa.
PERFECTION — Striking tool handles. Turner, Day & Woolworth Handle Co., Louisville, Ky.
PERFECTION—Water and jet wheels. Craig Ridgway & Son Co., Coatesville, Pa.
PERMAC—Jointing compound. Cling-Surface Co., Buffalo, N. Y.
PERMALOCK—Gasoline hose couplings. The B. F. Goodrich Co., Akron, Ohio.
PERMANENCE IN STEEL—Steel factory, school, office and garage equipment. Angle Steel Stool Co., Plainwell, Mich.
PERMANENT PRODUCTS — Brass and bronze bolts, nuts, screws, etc. The Everitt Co., Boston, Mass.
PERMANITE — Asbestos sheet packing. Ferodo & Asbestos, Inc., New Brunswick, N. J.
PERMITE—Aluminum paint, leaded phosphor bronze brass, bushings, bolts and castings. Aluminum Industries, Inc., Cincinnati, Ohio.
PERRY — Scrapers. The Sidney Steel Scraper Co., Sidney, Ohio.
PET—Lubricators. American Injector Co., Detroit, Mich.
PETROL—Conveyor belt. Victor Balata & Textile Belting Co., New York, N. Y.
PETROL — Throttle valves. The Wm. Powell Co., Cincinnati, Ohio.
PEXTO—Tools, hardware and sheet metal working machinery. The Peck, Stow & Wilcox Co., Southington, Conn.
PHOENIX—Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
PHOENIX—Twine, etc. Samson Cordage Works, Boston, Mass.
PHOMENE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.
PHONEYE—Fire extinguishers. Pyrene Manufacturing Co., Newark, N. J.
PIG NOSE—Knives for hogs, chippers and shredders. Mitts and Merrill, Saginaw, Mich.
PIGSKIN—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
PILOT—Iron body gate valves. The Wm. Powell Co., Cincinnati, Ohio.
PILOT—Sight feed oil cups. Essex Brass Corp., Detroit, Mich.
PILOT—Valves. Triumph Brass Co., Columbus, Ohio.
PIONEER—Flint paper. Wausau Abrasives Co. Division, Minnesota Mining & Manufacturing Co., St. Paul, Minn.
PIONEER — Leather belting. Foss & Bump, Inc., Springfield, Mass.
PIONEER—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
PIONEER — Steel hangers. Standard Pressed Steel Co., Jenkintown, Pa.
PIQUA—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
PISTOL—American style files. Grobet File Corp. of America, New York, N. Y.
PITTSBURGH BEVEL—Steel letters and figures (marking). Jas. H. Matthews & Co., Pittsburgh, Pa.
PLANER—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
PLANETAINER—Road drags. The General Wheelbarrow Co., Cleveland, Ohio.
PLASGON—Plastic and gasket cement. The Wilbur & Williams Co., Boston, Mass.
PLASTERKOTE—Waterproofing. Goheen Corporation of New Jersey, Newark, N. J.
PLASTEX—Paint. The Reardon Co., St. Louis, Mo.
PLASTIC K-N—Plastic chrome ore refractory. E. J. Lavino & Co., Philadelphia, Pa.
PLASTIC THERMOLITH BATCH—High temperature ramming mixture. Harbison-Walker Refractories Co., Pittsburgh, Pa.
PLASTOPAC—Rod packing. New York Belting & Packing Co., Passaic, N. J.
PLATE AA—Fire hose cabinet. Wirt & Knox Mfg. Co., Philadelphia, Pa.
PLUMTITE—Graphite paste. Superior Flake Graphite Co., Chicago, Ill.
PLUS—Type steel chains. Link-Belt Co., Chicago, Ill.
PLUVIOUS—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
PLYMOUTH—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
POLAR—Brass grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
POLAR — Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
POMPTON—Straight carbon tool bits. Ludlum Steel Co., Watervliet, N. Y.
PONY—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.

PONY—Wood and steel bar clamps. Adjustable Clamp Co., Chicago, Ill.
PORTAGE—Belting, hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
PORTFLEX—Flexible shaft equipment. The Dallett Co., Philadelphia, Pa.
PORTO-POWER — Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
POSITIVE—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
POSITIVE TYPE "D"—Spring washers, nut locks. The Positive Lock Washer Co., Newark, N. J.
POWER—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
POWER BOY—Car movers. The Advance Car Mover Co., Appleton, Wis.
POWER BOY—Portable pipe threading machine. Oster-Williams, Cleveland, O.
POWER HOE—Drag scraper. Link-Belt Co., Chicago, Ill.
POWER KING—Car movers. The Advance Car Mover Co., Appleton, Wis.
POWER KING—Portable electric hand saws and drills. Portable Power Tool Corp., Warsaw, Ind.
POWER KING — Tranmission belting. Goodall Rubber Co., Philadelphia, Pa.
POWDER-PACKED — Renewable fuses. Trico Fuse Mfg. Co., Milwaukee, Wis.
POWERHOLD — Leather belting. J. E. Rhoads & Son, Philadelphia, Pa.
PRACTICAL—Force feed oil pumps. McCullough Manufacturing Co., Minneapolis, Minn.
PRACTICAL — Jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
PRATT—Box car loaders. Link-Belt Co., Chicago, Ill.
PRATT & CADY—Valves and cocks. Reading-Pratt & Cady Co., Inc., Bridgeport, Conn.
PRECISION—Balancing machine. Gisholt Machine Co., Madison, Wis.
PRECISION—Band saw setters. J. D. Burrill & Son, Ilion, N. Y.
PRECISION — Frictionless live centers. The J. C. Glenzer Co., Detroit, Mich.
PRECISION GROUND—Cross-cut saws. Henry Disston & Sons, Inc., Philadelphia.
PREMIER—Gas engine lubricator. The Lunkenheimer Co., Cincinnati, Ohio.
PREMIER—Leather belting. McLean Manufacturing Corp., New York, N. Y.
PREMIER—Welding wire. American Steel & Wire Co., Chicago, Ill.
PREMIER-ATLAS—Pieced buffs. Hanson-Van Winkle-Munning Co., Matawan, N. J.
PRENTICE—Lathes. Reed-Prentice Corp., Worcester, Mass.
PRESSTICO — Asphalt paints, cements, etc. Presstite Engineering Co., St. Louis, Mo.
PRESSURE PROOF — Asbestos piston packing. A. W. Chesterton Co., Boston, Mass.
PRESTO—Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
PRESTO — Spray painting and finishing equipment. Metal Specialties Mfg. Co., Chicago, Ill.
PREST-O-LITE—Soldering, brazing and heating equipment, acetylene and flood lights. The Linde Air Products Co., New York, N. Y.
PREST-O-WELD — Welding and cutting equipment. The Linde Air Products Co., New York, N. Y.
PRICE—Pyrometers, indicating thermometers, etc. Illinois Testing Laboratories, Inc., Chicago, Ill.
PRIMA — Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
PRIMO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
PRIMUS—Camp stoves and torches. Sandvik Saw & Tool Corp., Minneapolis, Minn.
PRO-OIL (RUST-PRUF)—Primer and production undercoats. Menaugh & Co., Chicago, Ill.
PRODUCTIMETERS—Counting and measuring machines. Durant Mfg. Co., Milwaukee, Wis.
PRODUCTION—Abrasive paper or cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
PROFESSIONAL—Window brushes and cleaners. The Osborn Manufacturing Co., Cleveland, Ohio.
PROMAL—Chains and buckets. Link-Belt Co., Chicago, Ill.
PRONTO — Drain-pipe solvent. Pacific Chemical Co., Los Angeles, Calif.
PROTEC-STOC—Heat resisting paint. The National Roofing Co., Tonawanda, N. Y.
PROTECTED SEAT—Hydraulic operating valves. Homestead Valve Mfg. Co., Coraopolis, Pa.
PROTECTION — Torches and fire pots. Clayton & Lambert Mfg. Co., Detroit.
PROTEX ANTI-FREEZE — Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
PROTEXU—Rubber aprons. Gross Rubber Co., Sharon, Pa.
PRYZOAK — Leather belting. Graton & Knight Co., Worcester, Mass.
PULL-E-Z—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
PURAIR—Helmets. The W. W. Sly Manufacturing Co., Cleveland, Ohio.
PURITAN—Gasoline hose and hydraulic packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
PURITAN — Liquid hand soap. Pacific Chemical Co., Los Angeles, Calif.
PUROX—Welding and cutting equipment. The Linde Air Products Co., New York.
PUSH-E-Z—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
PUTNAM—Machine tools. Manning, Maxwell & Moore, Inc., New York, N. Y.
PYRAMID—Gears. Boston Gear Works, Inc., North Quincy, Mass.
PYRAMID—Leather belting. McLean Manufacturing Corp., New York, N. Y.
PYRATHERM—Stack safety control. The Mercoid Corp., Chicago, Ill.
PYRO-MORTAR—Dry refractory cement. Quigley Co., Inc., New York, N. Y.
PYROID—Compressed sheet packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
PYTHON—Belt and mill fire hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

Q

Q A — Pipe rests. Armstrong Mfg. Co., Bridgeport, Conn.
Q-CHROME—Refractory cement. Quigley Co., Inc., New York, N. Y.
Q-SEAL—Joint sealing compound. Quigley Co., Inc., New York, N. Y.
QUAKER METAL — Bearing or babbitt metal. Monarch Metal Co., Chicago, Ill.
QUALITY LINE—Fire pots, blow torches, etc. Clayton & Lambert Mfg. Co., Detroit, Mich.
QUALITY SEAL — Brooms. The Southwestern Broom Mfg. Co., Evansville, Ind.
QUEEN—Fire extinguishers, safety ladder shoes, oily waste cans, hose racks, etc. Harker Mfg. Co., Cincinnati, Ohio.
QUEEN—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ohio.
QUEEN ANNE—Burners. Scovill Mfg. Co., Waterbury, Conn.
QUEEN CITY — Adjustable wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
QUEEN CITY—Foot squaring sheet metal shears. Niagara Machine & Tool Works, Buffalo, N. Y.
QUEER CREEK—Oil stones. Norton Pike Co., Pike, N. H.
QUICK—Bar clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
QUICK AS WINK—Hose couplings, polishing wheels, etc. C. B. Hunt & Son, Salem, Ohio.
QUICK-CHANGE—Water gauges. Wright-Austin Co., Detroit, Mich.
QUICK DRY — Asphalt paint. American Asphalt Paint Co., Chicago, Ill.
QUICK-SET—Adjustable reamers. The Cleveland Twist Drill Co., Cleveland, O.
QUIK-FLO—Bronze quick opening gate valves. The D. T. Williams Valve Co., Cincinnati, Ohio.
QUIK-PACH—Plastic fire brick. A. P. Green Fire Brick Co., Mexico, Mo.

R

RC—Type flexible coupling. Link-Belt Co., Chicago, Ill.
RH—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
R. I. RED—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RN—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
R. R. REGRINDING—Railroad valve. The Lunkenheimer Co., Cincinnati, Ohio.
R-S—Furnaces, burners, heaters, controllers, blast gates, etc. R. S. Products Corp., Philadelphia, Pa.
R-3-P—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RABBIT—Swiss files. Grobet File Corp. of America, New York, N. Y.
RADIO—Belting and hose. Home Rubber Co., Trenton, N. J.
RADIUM A and B—Bearing metal. Hewitt Metal Corp., Detroit, Mich.
RAHTAN STEAMPROOF—Leather belting, check and loom straps. McLeod Leather & Belting Co., Greensboro, N. C.
RAIL HUGGER—Trolley chain hoist. The Yale & Towne Mfg. Co. (Philadelphia Division), Philadelphia, Pa.
RAILROAD SPECIAL—Screw wrench. J. H. Williams & Co., New York, N. Y.
RAINBOW—Wire belt lacing. Manufacturers' Belt Hook Co., Chicago, Ill.
RAINBOY—Nozzles. L. R. Nelson Mfg. Co., Inc., Peoria, Ill.
RAINIER—Shovels, scoops, spades, etc. The Conneaut Shovel Co., Conneaut, O.
RAJAH—Brooms. Midwest Broom Manufacturing Co., Circleville, Ohio.
RAJAH—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
RAJAH CORUNDUM — Grinding wheels, oil stones, etc. Goodrich Grinding Wheel Co., Chicago, Ill.
RAMAPO—Leather belting and cement. Baldwin Belting & Leather Co., Inc., New York, N. Y.
RAMSEY—Hand and power winches. United Machinery Co., Portland, Ore.
RANAREX—Indicators and recorders. The Permutit Co., New York, N. Y.
RANGER—Push brooms. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
RAMOL—Belt cleaner. F. Raniville Co., Grand Rapids, Mich.
RANGER SPECIAL — Linen forest fire hose. Fenwick-Reddaway Mfg. Co., Newark, N. J.
RANIWELD — Belting cement. F. Raniville Co., Grand Rapids, Mich.
RAPID—Engraving machinery. Desmond-Stephan Mfg. Co., Urbana, Ohio.
RAPID TRANSIT—Vises. Prentiss Vise Co., New York, N. Y.
RAPIDUCTION—Pipe and bolt threading machines. Oster Williams, Cleveland, O.
RATTLER — Hose. Home Rubber Co., Trenton, N. J.
RAVEN — Hose. Electric Hose & Rubber Co., Wilmington, Del.
RAWL-ANCHORS—Masonry anchors for bolts. The Rawlplug Co., Inc., New York.
RAWLDRILLS — Masonry drills. The Rawlplug Co., Inc., New York, N. Y.
RAWL-DRIVES—Expansion bolts. The Rawlplug Co., Inc., New York, N. Y.
READING—Railroad specialties. American Chain Co., Inc., Bridgeport, Conn.
READING BRAND—Brass and copper pipe nipples. H. W. Hunt Co., Reading, Mass.
READY—Throttle valves. The Wm. Powell Co., Cincinnati, Ohio.
REALOCK—Grease cups for locomotives. Flannery Bolt Co., Pittsburgh, Pa.
REARWIN—Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
RED ARROW—High speed steel hack saw blades. W. O. Barnes Co., Inc., Detroit.
RED ARROW—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
RED BANDS—Motors, etc. Howell Electric Motors Co., Howell, Mich.
RED CAP—Factory and railroad brooms. Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
RED CAP—Metal polish, etc. C. M. Kimball Co., Everett, Mass.
RED CAP—Thermostats. Bastian-Morley Co., LaPorte, Ind.
RED CROSS—Belt dressing. Bonner & Barnewall, Inc., New York, N. Y.
RED DRAGON — Gasoline blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
RED-E-HALL — Portable power pipe threader. American Die & Tool Co., Inc., Reading, Pa.
RED EDGE—Shovels, scoops, spades and picks, Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
RED END—Hack saws. Simonds Saw and Steel Co., Fitchburg, Mass.
RED FACE — Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
RED GIANT—Pneumatic drills. Chicago Pneumatic Tool Co., New York, N. Y.
RED GIANT—Valve cups. Parker Cup & Specialty Works, Inc., Parkers Landing, Pa.
RED HEAD-GOLD BAND — Bale ties. Northwestern Barb Wire Co., Sterling, Ill.
RED HEAD—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
RED-HED—Oil well chain. Link-Belt Co., Chicago, Ill.
RED JUNIOR—Lift trucks. Barrett-Cravens Co., Chicago, Ill.
RED LETTER — Soldering flux (liquid). The Ruby Chemical Co., Columbus, Ohio.
RED LINE—Differential hoists. Clinton E. Hobbs Co., Boston, Mass.
RED METAL—Sash chain. The Smith & Page Mfg. Co., Bridgeport, Conn.
RED NUT—Pipe wrenches. Henry & Allen, Auburn, N. Y.
RED RIPPERS—Truing tools. The Ross Mfg. Co., Cleveland, Ohio.
RED ROSE—Packing. Home Rubber Co., Trenton, N. J.
RED SEAL—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
RED SHIELD—Drills. Standard Tool Co., Cleveland, Ohio.
RED SHIELD—Transmission belting and air hose. The Mechanical Rubber Co., Passaic, N. J.
RED SOCKET—Reversible ratchet wrench. Lowell Wrench Co., Worcester, Mass.
RED STREAK—Portable electric tools. Wappat, Inc., Pittsburgh, Pa.

UMI

RED STREAK—Saws, machine knives and tool holder bits. Simonds Saw and Steel Co., Fitchburg, Mass.
RED TAG—Fence and gates. Cyclone Fence Co., Waukegan, Ill.
RED TANG—File. Simonds Saw and Steel Co., Fitchburg, Mass.
RED TIP—Rods. Mueller Brass Co., Port Huron, Mich.
RED TOP—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
REDDCOM—Linen hose. Fenwick-Reddaway Mfg. Co., Newark, N. J.
REDFIN—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REDISC—Cement. Charles H. Besly & Co., Chicago, Ill.
REDRIB—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REDSNAKE—Hose. Electric Hose & Rubber Co., Wilmington, Del.
REELITE—Automatic take-up reels for electric cable. Appleton Electric Co., Chicago, Ill.
REGAL—Engine lathe. R. K. Le Blond Machine Tool Co., Cincinnati, Ohio.
REGO—Welding equipment. Bastian-Blessing Co., Chicago, Ill.
REGOROD—Welding rods, fluxes and electrodes. The Bastian-Blessing Co., Chicago, Ill.
REHANCE—Chain attachments, sprockets, idlers and traction wheels. The Jeffrey Manufacturing Co., Columbus, Ohio.
REID—Drill chucks. R. H. Brown & Co., New Haven, Conn.
REILLY — Steam pumps. Vogt Brothers Mfg. Co., Louisville, Ky.
REK-TANG—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
RELIABLE—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
RELIABLE—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
RELIABLE—Ratchet grease cup. W. D. Allen Mfg. Co., Chicago, Ill.
RELIABLE—Taps, dies, screw plates, etc. Conant & Donelson Co., Conway, Mass.
RELIABLE — Tool handles. Hartwell Brothers, Memphis, Tenn.
RELIANCE—Bushings and bearings. Metal Saw & Machine Co., Inc., Springfield, Mass.
RELIANCE—Chains. The Jeffrey Manufacturing Co., Columbus, Ohio.
RELIANCE—Drills. New Process Twist Drill Co., Taunton, Mass.
RELIANCE—Drill rods. Pittsburgh Tool Steel Wire Co., Monaca, Pa.
RELIANCE—Leather belting, dressing, etc. Chicago Belting Co., Chicago, Ill.
RELIANCE — Measuring tapes. Eugene Dietzgen Co., Chicago, Ill.
RELIANCE — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
RELIANCE — Shears, etc. The W. H. Compton Shear Co., Newark, N. J.
REMCO—Individual motor drives, automotive replacement parts, valves, pump shafts, etc. Manley Products Corp., York, Pa.
REMUR-ALL—Wire brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
RENEWO—Bronze, globe, angle, cross and check valves and gauge cocks. The Lunkenheimer Co., Cincinnati, Ohio.
RENOLD-BOSTON — Silent and roller chain drives. Boston Gear Works, Inc., North Quincy, Mass.
RENSHAW—Ratchet drills. Pratt & Whitney Co., Hartford, Conn.
REPAIR-ALL—Solder. Gardiner Metal Co., Chicago, Ill.
REPLATE—Brass valves, globe, "Y" and gage cocks. Central Valve Co., Chicago.
RESCUE—Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
RESISTAL—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RESISTO—Concrete floor hardener. Pittsburgh Crushed Steel Co., Pittsburg, Pa.
RESISTOR—Hack saw blades. The Henry G. Thompson & Son Co., New Haven, Conn.
RESTLESS-STEEL—Platform trucks. The Service Caster & Truck Co., Albion, Mich.
RETAN—Waterproof leather belting. The Taylor Belting Co., Indianapolis, Ind.
RETAN SEA LION—Leather belting. Chicago Belting Co., Chicago, Ill.
RETSUL—Cleaner, polish, etc. Minnesota Mining & Mfg. Co., St. Paul, Minn.
REVERSO—Bronze nickel seat valves. The D. T. Williams Valve Co., Cincinnati, O.
REVOLVING HEAD—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.
REX—Aluminum oxide grinding wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
REX — Asbestos packing and gaskets. Crandall Packing Co., Palmyra, N. Y.
REX—Chains. Chain Belt Co., Milwaukee, Wis.
REX—Mixers, pavers, pumps, saw rigs, elevators, conveyors, chains and transmission equipment. Chain Belt Co., Milwaukee, Wis.
REX—Ply goods. John Rauschenberger Co., Milwaukee, Wis.
REX—Valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
REX-TAN — Leather belting. Bonner & Barnewall, Inc., New York, N. Y.
REXALL STORE SERVICE—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
REXITE—Rod packing. New York Belting & Packing Co., Passaic, N. J.
RHINO—Truck casters. The Bassick Co., Bridgeport, Conn.
RHODES — Metallic packing. Rhopac Products Corp., Chicago, Ill.
RIALTO — Elevator buckets. Link-Belt Co. Chicago, Ill.
RIBBED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RICE—Flue brush. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
RICE'S FLOW-ON—Interior white paint. U. S. Gutta Percha Paint Co., Providence, R. I.
RICHARDS—Oilers. Atlas-Ansonia Co., New Haven, Conn.
RICHARDSON—Slide rules. Gilson Slide Rule Co., Stuart, Fla.
RICHTAL—Track drills, car movers and tie boring machines. Tallman Manufacturing Co., Shelbyville, Ill.
RICK — Cocks, valves, fittings, etc. The Rickersberg Brass Co., Cleveland, Ohio.
RIDGID—Wrenches, cutters, vises, vise stands, etc. The Ridge Tool Co., Elyria, Ohio.
RIDGOIL—Threading oil. The Ridge Tool Co., Elyria, Ohio.
RIDORAY—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RIDORISK—Goggles. Harry Buegelisen, Brooklyn, N. Y.
RIDODUST—Goggles. Harry Buegeleisen, Brooklyn, N. Y.
RIEHL—Wire wheel sections. The Osborn Manufacturing Co., Cleveland, Ohio.
RIEHL TRIUMPH—Tampico wheels. The Osborn Manufacturing Co., Cleveland, O.
RIFCO—Unions. Rhode Island Fittings Co., Hillsgrove, R. I.
RIGIDMILLS—Milling machines. Sundstrand Machine Tool Co., Rockford, Ill.
RING—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
RING TRUE—Babbit. Michigan Smelting & Refining Co., Detroit, Mich.
RINO—Waterproof leather belting and cement. Bonner & Barnewall, Inc., New York, N. Y.
RISERTHERM—Boiler control. The Mercoid Corp., Chicago, Ill.
RITE-SPEED—Floor grinders. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
RIVAL—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
ROADBUILDERS—Hose. Goodall Rubber Co., Philadelphia, Pa.
ROBERTS—Electric hammers, etc. Electric Hammer Syndicate, Louisville, Ky.
ROBIN — Hose. Electric Hose & Rubber Co., Wilmington, Del.
ROBINBRAND — Wiping and polishing cloths and cheese cloth. D. Robinson & Sons, Detroit, Mich.
ROBINSON—Braiding machines. Andrew C. Campbell, Division of American Chain Co., Inc., Bridgeport, Conn.
ROC OAK—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
ROCHESTER — Force feed lubricators. Greene, Tweed & Co., New York, N. Y.
ROCK CORK — Cold insulation. Johns-Manville Sales Corp., New York, N. Y.
ROCK DRILL—Water valves. The Lunkenheimer Co., Cincinnati, Ohio.
ROCKER JOINT — Transmission chain. Morse Chain Co., Ithaca, N. Y.
ROCKFORD — Drilling and boring machines. Rockford Drilling Machine Co., Rockford, Ill.
RODTITE—Semi metallic packing. The Darcoid Co., Inc., New York, N. Y.
ROL-EZY—Truck casters and wheels. Currie Mfg. Co., Chicago, Ill.
ROLLER CUSHION—Loom straps. E. H. Jacobs Manufacturing Co., Danielson, Conn.
ROLLER-UNDERDRY — Gates. R. H. Beaumont Co., Philadelphia, Pa.
ROLLERINE—Bearing grease. Royersford Foundry & Machine Co., Royersford, Pa.
ROLLERPLANE—Speed reducer. Swayne-Robinson & Co., Richmond, Ind.
ROME—Steel tubing. Peter A. Frasse & Co., Inc., New York, N. Y.
ROMEC — Rotary pumps. The Martell Packings Co., Elyria, Ohio.
ROOF-SHIELD — Roof cement. Ensign Products Co., Cleveland, Ohio.
ROPE & CORDAGE FILLER—Rope drive dressing. F. Raniville Co., Grand Rapids, Mich.
ROSS—Hydrant thawing device. American-LaFrance and Foamite Corp., Elmira, N. Y.
ROTA-ROLL — Pump. Sundstrand Machine Tool Co., Rockford, Ill.
ROTOR—Brick cleaning machines. C. B. Hunt & Son, Salem, Ohio.
ROTOR LIFT—Vertical screw elevator. Link-Belt Co., Chicago, Ill.
ROTURBO—Pumps. Manistee Iron Works Co., Manistee, Mich.
ROUGHRIDER — Fire extinguishers. American-LaFrance and Foamite Corp., Elmira, N. Y.
ROUND — Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
ROYAL — Fire extinguishers. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
ROYAL—Fire hose racks and reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
ROYAL—Hardening powder. Anti-Borax Compound Co., Fort Wayne, Ind.
ROYAL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
ROYAL — Packing. Home Rubber Co., Trenton, N. J.
ROYAL EXTRA—Leather belting. Chas. A. Schieren Co., New York, N. Y.
ROYAL MONARCH — Leather belting. Couse & Bolten, Inc., Newark, N. J.
ROYAL OAK—Leather belting. Smyth-Despard Co., Utica, N. Y.
ROYAL RED—Transmission belting and garden hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
ROYAL WORCESTER—Fire and track brooms. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
ROYAL WORCESTER—Lace leather, belt dressing, etc. Graton & Knight Co., Worcester, Mass.
RUBBER COATING—Belt treatment. F. Raniville Co., Grand Rapids, Mich.
RUBBER-ITE—Stitched canvas and solid woven cotton belting. McIlroy Belting Works, Hammond, Ind.
RUBRO — Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
RUBY—Oils and greases. D. A. Stuart Oil Co., Chicago, Ill.
RUBY—Gasket packing. New York Belting & Packing Co., Passaic, N. J.
RUBY-RUB—Metal polish. Hinds and Coon Co., Boston, Mass.
RUBYFLUID—Soldering flux, acid and resin core solder. The Ruby Chemical Co., Columbus, Ohio.
RUF-NEK—Oil well pumping unit. Link-Belt Co., Chicago, Ill.
RURAL—Lubricators. Essex Brass Corp., Detroit, Mich.
RUSCO—Brake lining, clutch facings and belting. Russell Manufacturing Co., Middletown, Conn.
RUSGO—Rust solvent. Babbitt Steam Specialty Co., New Bedford, Mass.
RUSSO—Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.
RUST CUTTER—Penetrating oil. Whiting Leather & Belting Co., Long Island City, N. Y.
RUST PROOF BESSEMER—Paint. H. Rinald Co., Philadelphia, Pa.
RUST-PRUF—Menaugh & Co., Inc., Chicago, Ill.
RUSTSOLVO—Penetrating oil. Rust products Co., Chicago, Ill.
RUSTVOID—Rust preventive. Whiting Leather & Belting Co., Long Island City, N. Y.
RYER—Alloy steel. Joseph T. Ryerson & Son, Inc., Chicago, Ill.
RYERSON—Hose reels. W. D. Allen Mfg. Co., Chicago, Ill.

S

S (in diamond)—Rope, yarns, etc. The Edwin H. Fitler Co., Philadelphia, Pa.
S-A—Anti-acid valves. The Lunkenheimer Co., Cincinnati, Ohio.
S. B. BOROLON—Grinding wheels. Abrasives Co. (Division of Simonds Saw and Steel Co.), Philadelphia, Pa.
S & C—Belt hooks. F. P. Smith & Co., Sharon Hill, Pa.
S-C—Power plant equipment. The Swartwout Co., Cleveland, Ohio.
S. C. & H. — Industrial furnaces. The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
S-F—Vacuum valves. Efficiency Engineering Co., Boston, Mass.
S & H—Tools. Crescent Tool Co., Jamestown, N. Y.
S. & S.—Belt hooks. F. P. Smith & Co., Sharon Hill, Pa.
SS-PLUS—Chains. Link-Belt Co., Chicago, Ill.
S&S—Friction clutches. A. L. Schultz & Sons, Chicago, Ill.
SSS—Hose, belting, boots, etc. Goodall Rubber Co., Philadelphia, Pa.

UMI

S-V — Electrically driven oxy-acetylene cutting machines. Jos. C. Paulus & Co., Philadelphia, Pa.
SW — Heaters and grease extractors. Standard Water Systems Co. of New Jersey, Hampton, N. J.
SABECO—Bushings, bearings, etc. Fredericksen Co., Saginaw, Mich.
SABRE—Leather belting. McCauley Belting Co., Chicago, Ill.
SACHEM—Sash cord. Samson Cordage Works, Boston, Mass.
SACO—Cotter pins. F. P. Smith & Co., Sharon Hill, Pa.
SACON—Belt conveyor carriers. Stephens-Adamson Mfg. Co., Aurora, Ill.
SAFE-T-BOND—Synthetic resin wheels. The Safety Grinding Wheel & Machine Co., Springfield, Ohio.
SAFE-T-HEAD — Pins and rivets for chains. Link-Belt Co., Chicago, Ill.
SAFSTICK—Bar belt dressing. Beltonic Products Co., Chicago, Ill.
SAFETY—Ash and oily waste cans, etc. Dover Stamping & Mfg. Co., Cambridge, Mass.
SAFETY PLUS—Socket set and head cap screws, stripper bolts, socket wrenches, etc. The Chicago Screw Co., Chicago, Ill.
SAFTY SAW—Portable sawing machines. D. W. Onan & Sons, Minneapolis, Minn.
SAGAMORE—Belt cement. Narragansett Belting Co., Providence, R. I.
SAGAMORE—Transmission belt. Hewitt Rubber Corp., Buffalo, N. Y.
ST. LOUIS—Grinders, polshing and tapping machines. Cutter Machine Co., St. Louis, Mo.
SAIRSET—High temperature cements. A. P. Green Fire Brick Co., Mexico, Mo.
SALEM—Elevator buckets. Link-Belt Co., Chicago, Ill.
SAMPSON—Extension ladder. The Rich Pump and Ladder Co., Cincinnati, Ohio.
SAMPSON—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
SAMPSON — Leather belting. McLeod Leather & Belting Co., Greensboro, N. C.
SAMSON—Car movers. Rowell Mfg. Co., Appleton, Wis.
SAMSON—Coil and side chain. The Chain Products Co., Cleveland, Ohio.
SAMSON — Lifting jacks. Oliver-Barth Jack Co., Milwaukee, Wis.
SAMSON—Steel shot. Pittsburgh Crushed Steel Co., Pittsburgh, Pa.
SAMSON—Wire brushes. Albert E. Rinn Co., Allentown, Pa.
SANCO BRAND—Wiping and polishing material. Sanitary Washed Wiper Co., Indianapolis, Ind.
SANDOW—Belting, hose and packing. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
SANFORD—Trowels, putty knives, scrapers, etc. Atlas-Ansonia Co., New Haven, Conn.
SANI SNAKE—Pipe cleaning tools. Stow Manufacturing Co., Inc., Binghamton, N. Y.
SANITAL—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
SARVA—Acid-resisting paint. American Asphalt Paint Co., Chicago, Ill.
SAUER EISEN — Caulking compound. Technical Products Co., Pittsburgh, Pa.
SAVAL—Funnels and measures. Dover Stamping & Mfg. Co., Cambridge, Mass.
SAW MASTER—Portable electric combination woodworking machines. Master Woodworker Mfg. Co., Detroit, Mich.
SAWMILL SPECIAL—Belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SAXON—Alligator type wrenches. The Kilborn and Bishop Co., New Haven, Conn.
SAXON—Hose. Goodall Rubber Co., Philadelphia, Pa.
SCHAEFER BYPASS—Traps, reducing temperature control valves, pump governors and regulators, etc. H. Belfield Co., Philadelphia, Pa.
SCHENCK TYPE — Elevator buckets. Link-Belt Co., Chicago, Ill.
SCHICK—Paper balers. The Micro Corp., Bettendorf, Iowa.
SCHIMMEL—Sanding machines. F. W. Winter & Co., Faribault, Minn.
SCIOTA—Flax packing and spray hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
SCOTCH—Masking tape. Minnesota Mining & Mfg. Co., St. Paul, Minn.
SCOUREE—Metal polish. The Grady Mfg. Co., Long Island City, N. Y.
SCOUT L-7—Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
SCREW SHOOTER — Electric screw driver. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SCRIVON —Leather belting. Keystone Belting Co., Philadelphia, Pa.
SCULLY RUGGLES PERFECTION — Valve guide cleaners. Scully Steel & Iron Co., Chicago, Ill.
SEA BEE—Waterproof leather belting. Couse & Bolten, Inc., Newark, N. J.
SEA-LECT—Waterproof belting. Keystone Belting Co., Philadelphia, Pa.
SEA LION—Leather belting, cement and neat's foot. Chicago Belting Co., Chicago, Ill.
SEA RING—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
SEACO—Tool, drill and die steels. Stulz-Sickles Co., Newark, N. J.
SEADER—Injectors, ejectors and valves. The Randle Machinery Co., Cincinnati.
SEAL ROCK—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SEALLAC—Gasket cement, boiler graphite, etc. Technical Products Co., Pittsburgh, Pa.
SEARIGHT—Mechanics' shears. Bartlett Manufacturing Co., Detroit, Mich.
SEAT OF PRODUCTION (THE)—Factory chairs and stools. Royal Metal Mfg. Co., Chicago, Ill.
SECATOR—Electrically driven oxy-acetylene cutting machines. Joseph C. Paulus & Co., Philadelphia, Pa.
SECTIONAL FLIGHT—Spiral screw conveyors. Link-Belt Co., Chicago, Ill.
SECURITY—Ball joints. The Chicago Screw Co., Chicago, Ill.
SECURO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
SEIGELITE — Packings and gaskets. Johns-Manville Sales Corp., New York.
SELECTIVE HEAD—Lathes. The Lodge & Shipley Machine Tool Co., Cincinnati.
SELF GRINDING—Chasers. Armstrong Mfg. Co., Bridgeport, Conn.
SELLS — Roller bearings. Royersford Foundry and Machine Co., Royersford, Pa.
SEMIBRONZE—Piston packing, asbestos metallic gaskets, etc. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
SEMINOLE—Alloy chisel steel. Ludlum Steel Co., Watervliet, N. Y.
SENATE—Hose. Goodall Rubber Co., Philadelphia, Pa.
SENATE — Packing. Consolidated Packing & Supply Co., New York, N. Y.
SENATOR—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.
SENECA — Hose. Goodall Rubber Co., Philadelphia, Pa.
SENIOR—Lubricators. The Lunkenheimer Co., Cincinnati, Ohio.
SENSATHERM—Thermostats. The Mercoid Corp., Chicago, Ill.
SENTINEL—Contractors' gasoline equipment. Loane Engineering Co., Baltimore, Md.
SENTINEL—Hose. Goodall Rubber Co., Philadelphia, Pa.
SENTINEL—Oil cups. The Lunkenheimer Co., Cincinnati, Ohio.
SERPENTINE—Hose. Home Rubber Co., Trenton, N. J.
SERVICE — Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SERVICE—Leather belting. J. E. Rhoads & Sons, Philadelphia, Pa.
SERVICE—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
SERVICE—Rubber coats. Goodall Rubber Co., Philadelphia, Pa.
SERVICE-AMERICAN—Hand trucks. The Service Caster & Truck Co., Albion, Mich.
SERVICE BRAND—Conveyor belts. Link-Belt Co., Chicago, Ill.
7716—Twist drills. National Twist Drill & Tool Co., Detroit, Mich.
SHAFERITE—Plastic metallic packing. Consolidated Packing & Supply Co., New York, N. Y.
SHARK BRAND—Chisels, gouges and plane irons. Sandvik Saw and Tool Corp., Minneapolis, Minn.
SHASTA—Shovels, scoops, spades, etc. The Conneaut Shovel Co., Conneaut, O.
SHAW—Electric cranes. Manning, Maxwell & Moore, Inc., New York, N. Y.
SHEAR-KUT—Valve seat cutters. Millersburg Reamer & Tool Co., Millersburg, Pa.
SHEDITE—Waterproof leather belting. I. B. Williams & Sons, Dover, N. H.
SHELBURNE—Tools. Goodell-Pratt Co., Greenfield, Mass.
SHELBY—Steel tubing. Peter A. Frasse & Co., Inc., New York, N. Y.
SHELDON—Car movers. The Aldon Co., Chicago, Ill.
SHEPARD—Vises. Prentiss Vise Co., New York, N. Y.
SHERIFF—Steam ejectors. Tranter Mfg. Co., Pittsburgh, Pa.
SHERMAN — Grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, O.
SHIELD — Leather belting. McCauley Belting Co., Chicago, Ill.
SHIELD—Machine knives. Taylor, Stiles & Co., Riegelsville, N. J.
SHIELD ARC—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
SHIELD BRAND—Twist drills, reamers, cutters, taps, dies, drill chucks and special tools. The Standard Tool Co., Cleveland, Ohio.
SHOK-PRUF-LOX—Door lock sets, etc. Milwaukee Hardware Co., Wm. Bolles, Prop., Milwaukee, Wis.
SHORT LAP—Leather belting. W. S. Nott Co., Minneapolis, Minn.
SHORTWALOADER—Loaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
SHUR-BRITE — Metal polish. Ensign Products Co., Cleveland, Ohio.
SHUR-FLO—Oil cups. Hunter Pressed Steel Co., Lansdale, Pa.
SHUR-GRIP—File and solder iron handles. Parker-Kalon Corp., New York.
SHUR-KLEEN—Oil soap. Ensign Products Co., Cleveland, Ohio.
SHURLOX—Lock washers. The Washburn Co., Worcester, Mass.
SHUSTER—Shovels, spades and scoops. Ames. Baldwin. Wyoming Shovel Co., Parkersburg, W. Va.
SIBLEYWARE—Drilling machines. Sibley Machine & Foundry Co., South Bend, Ind.
SIDELING—Steam traps. Nason Manufacturing Co., New York, N. Y.
SIEBEN—Grease traps, etc. Prier Brass Mfg. Co., Kansas City, Mo.
SIG-NAL-ITE — Torches. The Toledo Pressed Steel Co., Toledo, Ohio.
SIGMA STEEL—Valves, pipe fittings and flanges. Walworth Co., New York, N. Y.
SIGNAL—Glass body oilers. The Wm. Powell Co., Cincinnati, Ohio.
SIGNET—Compression stops, and stops and drains. Hays Manufacturing Co., Erie, Pa.
SIL-O-CEL — Insulation. Johns-Manville Sales Corp., New York, N. Y.
SILVER EDGE—Wheel pullers, riveting machines, etc. Raybestos Division of Raybestos-Manhattan, Inc., Bridgeport, Conn.
SILVER GENUINE—Babbitt metal. Merchant & Evans Co., Philadelphia, Pa.
SILVER KING—Conveyor belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SILVER METAL—Galvanizing flux. Empire Metal Co., Syracuse, N. Y.
SILVER STEEL—Saws. E. C. Atkins and Co., Indianapolis, Ind.
SILVERLINK—Roller chain. Link-Belt Co., Chicago, Ill.
SILVERSTREAK — Silent chain drives. Link-Belt Co., Chicago, Ill.
SIMANG—Drift pins. Bonney Forge & Tool Works, Allentown, Pa.
SIMPLATE—Valves for air compressors Chicago Pneumatic Tool Co., New York, N. Y.
SIMPLE—Single steam pumps. Dean Brothers Co., Indianapolis, Ind.
SIMPLEX—Belt conveyor carriers. Stephens-Adamson Mfg. Co., Aurora, Ill.
SIMPLEX—Bench and floor grinders. Wales Sales Corp., New York, N. Y.
SIMPLEX—Chain hoists. Speidel Elevator Corp., Reading, Pa.
SIMPLEX—Jacks, trench braces and pump pushers. Templeton, Kenly & Co., Chicago, Ill.
SIMPLEX—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
SIMPLEX—Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
SIMPLEX—Tank gauges. Viking Pump Co., Cedar Falls, Iowa.
SIMPLEX—Vises. Desmond-Stephens Mfg. Co., Urbana, Ohio.
SIMPLEX—Water feeders. Nason Manufacturing Co., New York, N. Y.
SIMPLIMATIC — Automatic chucking lathes. Gisholt Machine Co., Madison, Wis.
SINDEN—Box car loaders. Stephens-Adamson Mfg. Co., Aurora, Ill.
SINEW—Leather belting. Detroit Oak Belting Company, Detroit, Mich.
SINGER—Glass cutters. Wm. L. Barrett Co., Bristol, Conn.
SIROCCO—Fans and unit heaters. American Blower Corp., Detroit, Mich.
SIRTAN—Flat belting. J. E. Rhoads & Sons, Philadelphia, Pa.
SIRVIS—Packing leathers. The Chicago Rawhide Mfg. Co., Chicago, Ill.
600—Graphite cylinder oil. The Franklin Oil & Gas Co., Bedford, Conn.
SIXCEL—Pipe and boiler covering. Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
SKASCO—Core oils. Spencer Kellogg & Sons, Inc., Buffalo, N. Y.
SKOOKUM—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SKOOKUM—Roof cement. Maire Paint & Mfg. Co., Minneapolis, Minn.
SKY SERVICE HI DUTY CONNECTIONS—Copper tube couplings. Imperial Brass Manufacturing Co., Chicago, Ill.
SLAB BURNER—Boilers. A. B. Farquhar Co., Ltd., York, Pa.
SLASET—Lubricated rotor valve. The Lunkenheimer Co., Cincinnati, Ohio.

UMI

SLIP—Pump valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SMITH—Rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
J. BARTON SMITH—Files. Nicholson File Co., Providence, R. I.
SMITH MULTIPLEX PRESSURE—Railroad devices. The Clark Manufacturing Co., Philadelphia, Pa.
SMITH PATENT—Belt fasteners. H. D. Edwards & Co., Detroit, Mich.
SMITH PATENT ADJUSTABLE—Round dies. S. W. Card Mfg. Co., Division of Union Twist Drill Co., Mansfield, Mass.
SMITH TYPE—Friction clutches. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
SMOKE SLACK BLACK—Paint. A. C. Horn Co., Long Island City, N. Y.
SMOOTH-KUT—Reamers and valve seat cutters. Millersburg Reamer & Tool Co., Millersburg, Pa.
SNOW—Steam pumps. Worthington Pump and Machinery Corp., Harrison, N. J.
SNOWDRIFT—Wiping waste and rags. Sweetland Waste Co., Inc., Canton, Mass.
SOAPURN — Liquid soap dispensers. Charles Morrill, Inc., New York, N. Y.
SOC-KIT—Socket wrench sets. Keystone Mfg. Co., Buffalo, N. Y.
SOCONY—Industrial petroleum products. The Standard Oil Co. of New York, New York, N. Y.
SOLAR—Packing. Home Rubber Co., Trenton, N. J.
SOLARITE—Kalsomine. The Reardon Co., St. Louis, Mo.
SOLBASENE—Soluble oil base. The Metalene Chemical Co., Cleveland, Ohio.
SOLDER-MASTER — Hexacon Appliance Corp., Roselle Park, N. J.
SOLID STEEL—Shovels, scoops and spades. Ingersoll Steel & Disc Co., Newcastle, Ind.
SOLVOL—Boiler compound. Duryea Manufacturing Co., Bayonne, N. J.
SOLVIT—Cleaners. The Hollow Center Packing Co., Cleveland, Ohio.
SONDERGLASS—Gauge glasses. A. W. Chesterton Co., Boston, Mass.
SOOT EJECTOR and **SOOT SUCKER**—Boiler tube and flue cleaners. William H. Murray, Richmond Hill, New York, N. Y.
SOUTH BEND—Drilling machines. Sibley Machine Co., South Bend, Ind.
SOUTHERN—Drag scrapers. Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
SOVEREIGN—Hose and rod packing. The Darcoid Co., Inc., New York, N. Y.
SPANDO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SPAROAK—Leather belting. Graton & Knight Co., Worcester, Mass.
SPARTON—Alcohol mouth blow torches. The Lenk Mfg. Co., Newton Lower Falls, Mass.
SPASAVER—Work benches. W. C. Toles Co., Woodstock, Ill.
SPECIAL No. 13 and No. 9.—Abrasive wheels. Vitrified Wheel Co., Westfield, Mass.
SPECIAL RETAN — Steamproof leather belting. J. Bachmann & Co., Inc., New York, N. Y.
SPECIFICATION—Leather belting. W. S. Nott Co., Minneapolis, Minn.
SPEED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
SPEED-BLOC—Sander. Sterling Products Co., Detroit, Mich.
SPEED MARVEL—Table saw and shapers. Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
SPEED-UP—Tools. Stevens Walden, Inc., Worcester, Mass.
SPEEDBARROW—Wheelbarrows. General Wheelbarrow Co., Cleveland, Ohio.
SPEEDIZED—Wood screws. Elco Tool & Screw Corp., Rockford, Ill.
SPEEDMATIC SAW — Portable electric hand saw. The Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
SPEEDO—Washing powder. Ensign Products Co., Cleveland, Ohio.
SPEEDSTER—Portable saw rigs. Jones Superior Machine Co., Chicago, Ill.
SPEEDY—Hole cutting bits. W. A. Whitney Mfg. Co., Rockford, Ill.
SPHINX—Belting, hose, mats and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
SPIDER—Rod packing. New York Belting & Packing Co., Passaic, N. J.
SPIDER—Window brushes. The Osborn Manufacturing Co., Cleveland, Ohio.
SPIDER WEBB — Leather belting and dressing. J. A. Webb Belting Co., Inc., Buffalo, N. Y.
SPINTITE—Wrenches. Stevens Walden, Inc., Worcester, Mass.
SPIRAL—Pulley clutches and cut off couplings. Kinney Manufacturing Co., Boston 30, Mass.
SPIRAL LOCK SEAM and **SPIRALWELD**—Pipe. Naylor Pipe Co., Chicago, Ill.
SPIREX—Machine taper pin reamers. The Cleveland Twist Drill Co., Cleveland, O.
SPIRO — Compression shaft couplings. Bond Foundry and Machine Co., Manheim, Pa.
SPRACO — Spray painting equipment. Spraco, Inc., Somerville, Mass.
SPRAYIT — Paint spraying equipment. The Electric Sprayit Co., South Bend, Ind.
SPRING BEARING—Factory and warehouse trucks. West Bend Equipment Corp., West Bend, Wis.
SPRING HANDLE—Emery and grinding wheel dressers. Desmond-Stephan Mfg. Co., Urbana, Ohio.
SPRING-STEEL—Wire screens. Ludlow-Saylor Wire Co., St. Louis, Mo.
SPRITE—Lubricators. Essex Brass Corp., Detroit, Mich.
SPRUCOLITE—Compressed spruce motor pulleys. The American Pulley Co., Philadelphia, Pa.
SQ. TRIMMED—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
STA-PAK — Packless radiator valves. Capitol Brass Division, Bohn Aluminum & Brass Corp., Detroit, Mich.
STA-SHARP—Diamond tools and dressers. Commercial Diamond Co., Detroit, Mich.
STABLE ARC—Welders. The Lincoln Electric Co., Cleveland, Ohio.
STACKER—Belting. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
STACKER — Portable elevators. Lewis-Shepard Co., Watertown Station, Boston, Mass.
STAINWELD A—Welding electrodes. The Lincoln Electric Co., Cleveland, Ohio.
STALWART—Hose. Goodall Rubber Co., Philadelphia, Pa.
STAMCO—Pipe and boiler covering, etc. Standard Asbestos Mfg. Co. of Chicago, Chicago, Ill.
STANBRITE — Galvanizing flux. United American Metals Corp., Brooklyn, N. Y.
STANDARD—Axes, hammers, etc. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
STANDARD—Belt fasteners. Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
STANDARD—Belt hooks. Wm. E. Pratt Mfg. Co., Joliet, Ill.
STANDARD—Black belting. The Hettrick Mfg. Co., Toledo, Ohio.
STANDARD—"C" clamps. The Cincinnati Tool Co., Cincinnati, Ohio.
STANDARD—Counting machines. R. E. Hart Mfg. Co., Battle Creek, Mich.
STANDARD—Cut lacing. The Chicago Rawhide Mfg. Co., Chicago, Ill.
STANDARD — Electrical drills, grinders, buffing and polishing machines. The Standard Electrical Tool Co., Cincinnati.
STANDARD—Hose. Electric Hose & Rubber Co., Wilmington, Del.
STANDARD—Liquid hand soap. Pacific Chemical Co., Los Angeles, Calif.
STANDARD—Load binders. Advance Car Mover Co., Inc., Appleton, Wis.
STANDARD — Plumb bobs. Keuffel & Esser Co., Hoboken, N. J.
STANDARD—Refractory cement. General Refractories Co., Philadelphia, Pa.
STANDARD—Saw gunner. Ajax Mfg. Co., Pittsburgh, Pa.
STANDARD — Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
STANDARD — Track levels. Tallman Manufacturing Co., Shelbyville, Ill.
STANDARD PATTERN—Grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
STANDARD REXALL and **SAHARA**—Stitched fabric belting. Imperial Belting Co., Chicago, Ill.
STANICO—Sheet and plate working machinery. The Streine Tool & Mfg. Co., New Bremen, Ohio.
STANNUM—Babbitt metal. Lumen Bearing Co., Buffalo, N. Y.
STANOCEL—Pipe and boiler covering, etc. Standard Asbestos Mfg. Co., of Chicago, Chicago, Ill.
STANWELL—Canvas stitched belting. Fenwick-Reddaway Mfg. Co., Newark, N. J.
STAR — Babbitt metal. Rogers Metal Works, Kansas City, Mo.
STAR—Grease cups. American Injector Co., Detroit, Mich.
STAR—Hack saws and band saws. Clemson Bros., Inc., Middletown, N. Y.
STAR—Hose and valves. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
STAR—Insulating or friction tapes. Manning J. Smith Belting Co., Division of J. Sullivan & Sons Mfg. Co., Philadelphia, Pa.
STAR—Lathyarn. The Hooven & Allison Co., Xenia, Ohio.
STAR—Post hole diggers and augers. Wm. E. Pratt Mfg. Co., Joliet, Ill.
STAR AND CRESCENT—Soldering flux. McGill Manufacturing Co., Valparaiso, Ind.
STAR BRAND—Check straps. Baltimore Belting Co., Baltimore, Md.
STAR BRAND—Flint paper and emery cloth. Baeder-Adamson Co., Philadelphia, Pa.
STAR BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
STAR BRAND—Tackle blocks. Boston & Lockport Block Co., East Boston, Mass.
STAR OF BETHLEHEM—Tool handles. L. W. Strock & Co., Bethlehem, Pa.
STARS AND CROSS—Files and tools. American Swiss File & Tool Co., Elizabeth, N. J.
STATITE—Pipe joint cement. The Garland Co., Cleveland, Ohio.
STEARNS — Magnetic clutches, pulleys, etc. Magnetic Manufacturing Co., Milwaukee, Wis.
STEEL-ARM—Automatic belt tighteners. The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
STEEL CLAD—Wire wheel brushes. The Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
STEEL MIXTURE—Fire clay arches and high temperature cements, etc. McLeod & Henry Co., Troy, N. Y.
STEEL-VENEER — Granular refractory. Keystone Refractories Co., New York.
STEELBAC—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
STEELCRAFT — Cap and set screws. Cleveland Wrought Products Co. (Division of United Screw and Bolt Corp.), Cleveland, Ohio.
STEELFRAME—Pipe wrenches. Mechanics Tool & Wrench Co., Greenfield, Mass.
STEELEG—Lift truck platforms. Barrett-Cravens Co., Chicago, Ill.
STEELGRIP—Flexible steel belt lacing. Armstrong-Bray & Co., Chicago, Ill.
STEELITE—Babbitt. Gardiner Metal Co., Chicago, Ill.
STEELKLAD — Trucks. Fibre Specialty Mfg. Co., Kennett Square, Pa.
STEEL SOCKET BRIDGE — Reversible ratchet wrenches. Lowell Wrench Co., Worcester, Mass.
STEER—Leather belting. McCauley Belting Co., Chicago, Ill.
STEERBAX—Leather belting and cement. Whiting Leather & Belting Co., Long Island City, N. Y.
STEMFIRE STEMPEL and **STEMPEL FOAM**—Fire fighting devices. Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
STEPHAN STICK—Belt dressing. Desmond-Stephan Mfg. Co., Urbana, Ohio.
STERBLUE and **STERBON** — Grinding wheels and blocks. The Sterling Grinding Wheel Co., Abrasive Division of The Cleveland Quarries, Co., Tiffin, Ohio.
STERLING—Conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
STERLING—Tungsten blades. Diamond Saw and Stamping Works, Buffalo, N. Y.
STERLING—Packing. Home Rubber Co., Trenton, N. J.
STERLING—Levels. The Peerless Level & Tool Co., Sterling, Ill.
STERLING—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
STERLING—Nails and wire. Northwestern Barb Wire Co., Sterling, Ill.
STERLING—Paver and water hose. New York Belting & Packing Co., Passaic, N. J.
STERLING—Radiator hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
STERLITH—Grinding wheels and blocks. The Sterling Grinding Wheel Co., Abrasive Division of The Cleveland Quarries Co., Tiffin, Ohio.
STETSON—Chucks. Morse Twist Drill & Machine Co., New Bedford, Mass.
STICK TIGHT—Waterproof leather belting. O'Meara Belting Co., Omaha, Neb.
STOCKLAND—Graders. Foote Bros. Gear & Machine Co., Chicago, Ill.
STOCO—Safety goggles. Shur-On Optical Co., Inc., Geneva, N. Y.
STONEWALL—Babbitt. United American Metals Corp., Brooklyn, N. Y.
STONEWALL—Hose. Goodall Rubber Co., Philadelphia, Pa.
STORM KING—Leather belting. Foss & Bump, Inc., Springfield, Mass.
STOWE—Stokers. The Johnston & Jennings Co., Cleveland, Ohio.
STRAIGHT-LINE—Sander. The Dallet Co., Philadelphia, Pa.
STRAIT JACKET BRAND—Leather beltings. F. Raniville Co., Grand Rapids, Mich.
STRAUSS METAL—Cutting tools. Ludlum Steel Co., Watervliet, N. Y.
STREAMLINE—Fittings and copper pipe. Mueller Brass Co., Port Huron, Mich.
STRONGHOLD—Leather belting, etc. J. E. Rhoads & Sons, Philadelphia, Pa.
STUART—Shovels, scoops and spades. Wood Shovel & Tool Co., Piqua, Ohio.
STUB—Lathes. Sundstrand Machine Tool Co., Rockford, Ill.
STUEBING—Hand lift trucks. The Yale & Towne Mfg. Co. (Philadelphia Division), Philadelphia, Pa.

SUBMARINE—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
SUBWAY—Hose. Goodall Rubber Co., Philadelphia, Pa.
SUCCESS—Circular wire brush sections. The Herold Bros. Co., Cleveland, Ohio.
SUCCESS—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
SUDSOIL NEUTRALINE—Oil soap. Pacific Chemical Co., Los Angeles, Calif.
SULPHURETTE—Compound for copper oxidizing. C. G. Buchanan Chemical Co., Cincinnati, Ohio.
SUMAC—Boiler compound. Imperial Floor Co., Inc., Rochester, N. Y.
SUMMIT—Belting. The B. F. Goodrich Co., Akron, Ohio.
SUMTER—Packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
SUNOCO—Petroleum products. Sun Oil Co., Philadelphia, Pa.
SUNPROOF—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SUNSET—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
SUPER—Aluminum solder. The Lenk Mfg. Co., Newton Lower Falls, Mass.
SUPER—Valve reseaters. Jay-Tee Tool Sales Co., Cleveland, Ohio.
SUPER ALUMALOY—Bearing metals. Premium Metal & Packing Co., Wilkinsburg, Pa.
SUPER-BUILT—Aluminum floats. Arthur Harris & Co., Chicago, Ill.
SUPER-DREADNAUGHT—Hose and belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
SUPER DUTY—Files, rasps and butcher steels. The Cleveland File Co., Cleveland, Ohio.
SUPER FUME PROOF WHITE—Inside paint. A. C. Horn Co., Long Island City, N. Y.
SUPER EXCELO—Conveyor belting. The Republic Rubber Co., Youngstown, Ohio.
SUPER HOLE SHOOTER—Electric drills. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SUPER-KOOL—Automatic screw washing oil. D. A. Stuart Oil Co., Chicago, Ill.
SUPER-MARCO—Conveyor belting. The Mechanical Rubber Co., Passaic, N. J.
SUPER-MASTER—Belting. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
SUPER MASTER—Lawn mowers. Worcester Lawn Mower Co., Worcester, Mass.
SUPER-MICROMETER—Measuring machines. Pratt & Whitney Co., Hartford, Conn.
SUPER-NIAGARA—Emery. Keystone Emery Mills, Philadelphia, Pa.
SUPER BOB-CAT—Mechanics' hand tools. Hinsdale Manufacturing Co., Chicago, Ill.
SUPER 8—Solid round leather belting. F. Raniville Co., Grand Rapids, Mich.
SUPER ELM PARK—Lawn mowers. Worcester Lawn Mower Co., Worcester, Mass.
SUPER PLASTIC—Plastic fire brick. A. P. Green Fire Brick Co., Mexico, Mo.
SUPER PORTO—Portable electric saws. Portable Power Tool Corp., Warsaw, Ind.
SUPER POWER—Magnetic chucks. Taft-Peirce Mfg. Co., Woonsocket, R. I.
SUPER POWER—Short center belt drive. Baldwin Belting & Leather Co., Inc., New York, N. Y.
SUPER-SAW—Electric handsaw. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SUPER SCREW-SHOOTER—Electric screw driver. Milwaukee Electric Tool Corp., Milwaukee, Wis.
SUPER SERVICE—Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
SUPER-SIX—Battery tools. S. R. M. Orum, Inc., Philadelphia, Pa.
SUPER-SUPERIOR—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
SUPER-WAY—Mill type doors. Richards-Wilcox Mfg. Co., Aurora, Ill.
SUPER WOODWORKER—Portable saw rigs. Jones Superior Machine Co., Chicago, Ill.
SUPERBELT—Leather belting. Philadelphia Belting Co., Philadelphia, Pa.
SUPERCLAMP—Steel "C" clamp. The Cincinnati Tool Co., Cincinnati, Ohio.
SUPEREX—Insulation. Johns-Manville Sales Corp., New York, N. Y.
SUPERFLAKE—Graphite, greases, paints, penerating oil, pipe joint compound, belt and wire rope dressing and rust preventive. Superior Flake Graphite Co., Chicago, Ill.
SUPER-STERLING—Hack saw blades. Diamond Saw & Stamping Works, Buffalo, N. Y.
SUPERIOR—Axes, hatchets, etc. The Collins Co., Collinsville, Ind.
SUPERIOR—Car movers and rail benders. Tallman Manufacturing Co., Shelbyville, Ill.
SUPERIOR—Leather belting, pins, gear blanks, etc. Western Rawhide & Belting Co., Milwaukee, Wis.
SUPERIOR—Machinists' vises. The Charles Parker Co., Meriden, Conn.
SUPERIOR—Oil filters. Handlan-Buck Mfg. Co., St. Louis, Mo.
SUPERIOR—Oil and gas line tubing. Penn Brass & Copper Co., Erie, Pa.
SUPERIOR—Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
SUPERIOR—Welded steel oilers. P. Wall Mfg. Supply Co., Pittsburgh, Pa.
SUPERIOR—Woodworking machinery. Jones Superior Machine Co., Chicago, Ill.
SUPERIOR—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERIOR PLATINUM POINT—Files. Nicholson File Co., Providence, R. I.
SUPERRENCH—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERSOCKET—Wrenches. J. H. Williams & Co., New York, N. Y.
SUPERSTEEL—Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago, Ill.
SUPERTAN—Leather belting. Baldwin Belting & Leather Co., Inc., New York.
SUPERTENSIL—Cap screws. The Lamson & Sessions Co., Cleveland, Ohio.
SUPREME—Hose. Home Rubber Co., Trenton, N. J.
SUPREME—Oil lanterns. Embury Mfg. Co., Warsaw, N. Y.
SUPREME—Theatre style expansion bolts. Chicago Expansion Bolt Co., Chicago, Ill.
SUPREME—Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
SURE-CLEAN—Window cleaners. The Osborn Manufacturing Co., Cleveland, O.
SURE-GRIP—Collets. Sutton Tool Co., Detroit, Mich.
SURE GRIP—Door hangers, etc. The F. E. Myers & Bros. Co., Ashland, Ohio.
SUREFEED—Lubricators. American Injector Co., Detroit, Mich.
SUREGRIP—Nail pullers. The Bridgeport Hdwe. Mfg. Co., Bridgeport, Conn.
SURELOCK—Grease cups. American Injector Co., Detroit, Mich.
SURPRISE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
SURPRISE—Oil burners. Efficiency Engineering Co., Boston, Mass.
SUTTON—Leather belting. Johnson Belting Co., New York, N. Y.
SVEA—Camp stoves and torches. Sandvik Saw & Tool Corp., Minneapolis, Minn.
SWACO—Car movers and car dumping wrenches. Safety Wrench & Appliance Co., Worcester, Mass.
SWAN—Automatic valves. Klipfel Manufacturing Co., Chicago, Ill.
SWIVEL HEAD—Bolt clippers. U. K. Porter, Inc., Everett, Mass.
SYKES—Herringbone gears and reducers. Link-Belt Co., Chicago, Ill.
SYKES—Hose holder. W. D. Allen Mfg. Co., Chicago, Ill.
SYNCROGEAR—Motors. U. S. Electrical Mfg. Co., Los Angeles, Calif.
SYRACUSE METALS—Metals and solder. United American Metals Corp., Brooklyn, N. Y.
SYRACUSE SANDER—Sanding machines. Porter-Cable-Hutchinson Corp., Syracuse, N. Y.

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T J—Die sinking cutters. The Tomkins-Johnson Co., Jackson, Mich.
TR—Motors. The Triumph Electric Corp., Carthage, Cincinnati, Ohio.
TABCO—Blowers, air compressors, etc. Allen & Billmyre Co., Inc., New York.
TACOMA—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TAKE-ABOUT SANDER—Portable electric sanding and polishing machines. The Porter-Cable-Hutchinson Corp., Syracuse, N. Y.
TALISMANIC—Belt dressings. John C. Chambers Co., Chicago, Ill.
TAMARACK—Glass oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TAMPAX—Fibre sheet packing. Advance Packing & Supply Co., Chicago, Ill.
TAN-O-TAN BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
TANCHROME—Leather packing. Michigan Leather Packing Co., Detroit, Mich.
TANDEM—Pressure oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TANK TYPE—Belt conveyor trippers. Link-Belt Co., Chicago, Ill.
TANNATE—Leather belting, belt preserver, packing, etc. J. E. Rhoads & Sons, Philadelphia, Pa.
TANTAR—Packing. Advance Packing & Supply Co., Chicago, Ill.
TAPERED SOCKET—Shovels. The Wood Shovel and Tool Co., Piqua, Ohio.
TAPERLOCK—Thread and cylinder gauges. Pratt & Whitney Co., Hartford, Conn.
TARK—Sewage screen. Link-Belt Co., Chicago, Ill.
TARPON—Leather belting. Page Belting Co., Concord, N. H.
TARRANT—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TASGON—Penetrating oil and rust solvent. The Wilbur & Williams Co., Boston, Mass.
TATE—Flexible boiler staybolts. Flannery Bolt Co., Pittsburgh, Pa.
TEE—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
TEE FLEX—Wrenches. Stevens Walden, Inc., Worcester, Mass.
TEELERRO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
TEMPLE—Glass oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TENAX—Compressed asbestos sheet packing. Advance Packing & Supply Co., Chicago, Ill.
TENEX—Lathyarn. The Hooven & Allison Co., Xenia, Ohio.
TENSILLITE—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco.
TENSO—Coil chain specialties. American Chain Co., Inc., Bridgeport, Conn.
TENTACULAR—Leather belting. Alexander Brothers, Inc., Philadelphia, Pa.
TEON—Belting. D. P. Brown & Co., Philadelphia, Pa.
TERRIER—Alligator type wrenches. The Kilborn and Bishop Co., New Haven, Conn.
TERRIER—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TEST—R. C. Fire hose. New York Belting & Packing Co., Passaic, N. J.
TEST SPECIAL—Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TEX DRIVE—V belt grinders and buffers. The Hisey-Wolf Machine Co., Cincinnati.
TEX ROPE—"V" belt drives and "V" belts. Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
TEXSTEEL—Pressed steel Texrope (V-belt) drive sheaves. Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
TEX-TIL TYPE—Casing for silent chain drives. Link-Belt Co., Chicago, Ill.
TEXTOLITE—Loom pickers. E. H. Jacobs Manufacturing Co., Danielson, Conn.
TEXTOLITE—Wheels. The Service Caster & Truck Co., Albion, Mich.
THE GEAR WITH A BACKBONE—Herringbone gears. Farrel-Birmingham Co., Inc., Buffalo, N. Y.
THERMAL—Traps. Nason Manufacturing Co., New York, N. Y.
THERMO—Canvas stitched conveyor belt, etc. Gandy Belting Co., Grand Rapids, Mich.
THERMO—Industrial glass. Macbeth-Evans Glass Co., Charleroi, Pa.
THERMO—Leather belting. Couse & Bolten, Inc., Newark, N. J.
THERMO—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
THERMO-GANDY—Belting. The Gandy Belting Co., Grand Rapids, Mich.
THERMOFLEX—Steam specialties, etc. Grinnell Co., Inc., Providence, R. I.
THERMO-LECTRIC—Babbitts. Buffalo Foundry & Machine Co., Buffalo, N. Y.
THERMO TEMPER—Woodworking knives. Stalter Edge Tool Co., Grand Rapids, Mich.
THERMOHER—Unit heaters. Grinnell Co., Inc., Providence, R. I.
THERMOKOTE—Heat resistant paint. Goheen Corporation of New Jersey, Newark, N. J.
THERMOLD—Refractory cement. Technical Products Co., Pittsburgh, Pa.
THERMOLIER—Unit heaters. Grinnell Co., Inc., Providence, R. I.
THERMOLITE—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
THERMOLITH—High temperature bonding mortar. Harbison-Walker Refractories Co., Pittsburgh, Pa.
THERMOPLAX—Moulded insulation. Cutler-Hammer, Inc., Milwaukee, Wis.
THISTLE BRAND—Taps, dies and screw plates. Winter Brothers Co., Inc., Wrentham, Mass.
THOMAS—Calorimeters and meters. Cutler-Hammer, Inc., Milwaukee, Wis.
THOMAS—Pumps. Smith-Meeker Engrg. Co., New York, N. Y.
THOMPSON—Damper regulators and planimeters. William H. Murray, Richmond Hill, New York, N. Y.
THOR—Belting. The Goodyear Tire & Rubber Co., Inc., Akron, Ohio.
THOR—Electric and pneumatic tools and air compressors. Independent Pneumatic Tool Co., Chicago, Ill.
THOR COCHISE—Rock drills and stopers. Independent Pneumatic Tool Co., Chicago, Ill.

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THOROBRED—Cord garden hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
THRED-KUT—Lubricating oil. D. A. Stuart Oil Co., Chicago, Ill.
THREDOLETS — Welding pipe fittings. Bonney Forge & Tool Works, Allentown, Pa.
THREE IN ONE—Force pumps. Charles Perkes Co., Philadelphia, Pa.
THREE-IN-ONE—Vapor-vacuum fittings. Messmer Brass Co., St. Louis, Mo.
THREE-M—Sandpapers. Minnesota Mining & Mfg. Co., St. Paul, Minn.
THREE-M-ITE—Abrasive cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
THREE PART RIBBED—Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
NO. 371—Belt preserver. Ensign Products Co., Cleveland, Ohio.
3-W STERIL-CLEAN — Wiping cloths. Wisconsin Waste and Wiper Co., Milwaukee, Wis.
THRESHER—Transmission belting. New York Belting & Packing Co., Passaic, N. J.
THURCO — Milling cutters, saws, etc. Thurston Mfg. Co., Providence, R. I.
TIGER—Belting and hose. Home Rubber Co., Trenton, N. J.
TIGER—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
TIGER—Hose and cloth insertion sheet packing. Boston Woven Hose & Rubber Co., Cambridge, Mass.
TIGER—Sash cord. Samson Cordage Works, Boston, Mass.
TIGER—Wire rope clips and sockets. American Steel & Wire Co., Chicago, Ill.
TIGER TAM—Leather belting. Baltimore Belting Co., Baltimore, Md.
TILTON—Canvas and cotton belting, etc. Arthur S. Brown Mfg. Co., Tilton, N. H.
TIMBERTEX — Asbestos shingles. The Ruberoid Co., New York, N. Y.
TIREX—Wires and cables. Simplex Wire & Cable Co., Boston, Mass.
TIS-WITE—Mill white paint. Otley Paint Mfg. Co., Chicago, Ill.
TITAN—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
TITAN—Belting hose, packing, mats, cement, etc., Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
TITAN—Throttle valves. The Wm. Powell Co., Cincinnati, Ohio.
TITEFIT—Goggles. Chicago Eye Shield Co., Chicago, Ill.
TOBIN BRONZE—Sheets, rods and tubes. The American Brass Co., American Metal Hose Branch, Waterbury, Conn.
TOM THUMB—Portable pipe machine. The Oster-Williams, Cleveland, Ohio.
TON-CAP—Wire screen. The W. S. Tyler Co., Cleveland, Ohio.
TONCAN—Iron pipe. Republic Steel Corp., Youngstown, Ohio.
TONKA—Water hose. The Republic Rubber Co., Youngstown, Ohio.
TONWATE—Casters and wheels. Divine Brothers Co., Utica, N. Y.
TOOL COOL—Soluble oil. The Franklin Oil & Gas Co., Bedford, Ohio.
TOPAZ—Sight feed oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TORNADO—Boiler tube cleaner. Paul B. B. Huyette Co., Inc., Philadelphia, Pa.
TORNADO — Vacuum cleaners, electric blowers and electric insecticide and paint sprayers. Breuer Electric Manufacturing Co., Chicago, Ill.
TORNEDO — Waterproof leather belting and belt cement. O'Meara Belting Co., Omaha, Neb.
TORPEDO—Packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
TOUGHIDE BRAND—Leather belting. F. Raniville Co., Grand Rapids, Mich.
TOURIST-T8-5—Hydraulic oil power jacks and power units. Blackhawk Mfg. Co., Milwaukee, Wis.
TOWER—Pneumatic tool hose. The Republic Rubber Co., Youngstown, Ohio.
TRACYFIER—Steam purifier. Blaw-Knox Co., Pittsburgh, Pa.
TRAFFIC MODEL—Fire hydrants. Vogt Brothers Mfg. Co., Louisville, Ky.
TRANCO—Lift trucks. Chapman Bearing & Engineering Corp., Buffalo, N. Y.
TRANSIT—Pumps, tools and compressors. National Transit Pump & Machine Co., Oil City, Pa.
TRANSITE—Asbestos roofing and siding. Johns-Manville Sales Corp., New York.
TREMONT—Snap lever oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TRENTON-BLEICHERT—Aerial tramways. American Steel & Wire Co., Chicago, Ill.
TRI B. BRAND—Industrial chemicals. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
TRI-M-ITE—Abrasive paper or cloth. Minnesota Mining & Mfg. Co., St. Paul, Minn.
TRI-PLEX — Combination lathe chucks. The Cushman Chuck Co., Hartford, Conn.
TRI-WELD—Steel loading chain. The Cleveland Chain & Mfg. Co., Cleveland, O.
TRIANGLE—Hand hammer. The Rawlplug Co., New York, N. Y.
TRIANGLE B. BRAND—Fluxes and compounds. C. G. Buchanan Chemical Co., Norwood, Cincinnati, Ohio.
TRIBLOC—Spur gear chain hoists. Ford Chain Block Co., Philadelphia, Pa.
TRICROME—Cutter wheels and screw drivers. Trimont Mfg. Co., Roxbury, Boston, Mass.
TRIDENT—Loading chain, guy clamps and drill press and vise. Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N. Y.
TRILOCK—Thread and cylinder gauges. Pratt & Whitney Co., Hartford, Conn.
TRIMO—Wrenches and pipe tools. Trimont Mfg. Co., Roxbury, Boston, Mass.
TRIMO-ALLOY—Pipe wrenches. Trimont mont Mfg. Co., Roxbury, Boston, Mass.
TRIPLE—Pipe bends, headers and fabricated piping. Grinnell Co., Inc., Providence, R. I.
TRIPLE A—Blowers, exhausters, vacuum, etc. Allen Air Appliance Co., Inc., New York, N. Y.
TRIPLE-A—Protective coatings. Quigley Co., Inc., New York, N. Y.
TRIPLE DIAMOND—Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TRIPLE DUTY—Emergency valves. Foster Engineering Co., Newark, N. J.
TRIPLE-IFE—Hack saws. The Arion Steel Co., Boston, Mass.
TRIPLE STAR — Transmission belting. New York Belting & Packing Co., Passaic, N. J.
TRIPLE XXX—Fabricated piping. Grinnell Co., Inc., Providence, R. I.
TRIPLEX — Buffs. Hanson-Van Winkle-Munning Co., Matawan, N. J.
TRIPLEX — Combination lathe, milling machine and drill press. B. C. Ames Co., Waltham, Mass.
TRIPLEX (THE)—Lathe chuck. The Cushman Chuck Co., Hartford, Conn.
TRIPLEX — Oil gauges. The Lunkenheimer Co., Cincinnati, Ohio.
TRIPOLINE — Metal polish. Matchless Metal Polish Co., Chicago, Ill.
TRIPPER—Conveyor belt. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
TRIPURE—Water stills. Standard Water Systems Co. of New Jersey, Hampton, N. J.
TRIUMPH—Striking tool handles. Turner, Day and Woolworth Handle Co., Louisville, Ky.
TRIUMPH—White tampico sections. The Osborn Manufacturing Co., Cleveland, O.
TRIXAS — Insulating paint. American Asphalt Paint Co., Chicago, Ill.
TROJAN—Gauge cocks and reflex gauges. Klingerit, Inc., New York, N. Y.
TROJAN—Metallic packing and grinding compound. H. G. Hammett, Troy, N. Y.
TROJAN — Shovels, spades and scoops. Ingersoll Steel & Disc Co., Newcastle, Ind.
TROPHY—Lock bar oil cups. The D. T. Williams Valve Co., Cincinnati, Ohio.
TROUT—Power set works for saw mills. Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
TRU-LAY — Wire rope. American Cable Co., Inc., Wilkes-Barre, Pa.
TRU-LOC—Wire rope fittings. American Cable Co., Inc., Wilkes-Barre, Pa.
TRUE AMERICAN—Chopping axes. Mann Edge Tool Co., Lewistown, Pa.
TRUE BLUE—Semi-steel pulleys. W. A. Jones Foundry & Machine Co., Chicago.
TRUE OAK—Leather belting. Smyth-Despard Co., Utica, N. Y.
TRUNDLER—Trucks. The Service Caster & Truck Co., Albion, Mich.
TRUSFORM—Snap gauges. Pratt & Whitney Co., Hartford, Conn.
TRUSTY—Gasoline strainers. The Lunkenheimer Co., Cincinnati, Ohio.
TRY-ME—Ball cocks, valves, strainers, etc. Tryco Products, Inc., Westfield, Mass.
TUBOND—Lead lined pipe. National Lead Co., New York, N. Y.
TUCKS—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
TUCONE—Rock bits. Chicago Pneumatic Tool Co., New York, N. Y.
TU-GUYEYE—Combination eye bolt and thimble. Hubbard & Co., Pittsburgh, Pa.
TU-TAN—Leather belting. W. S. Nott Co., Minneapolis, Minn.
TUF—Metal valve discs. William H. Murray, Richmond Hill, New York, N. Y.
TUFF—Lenses. Harry Buegeleisen, Brooklyn, N. Y.
TUF-STUF — Aluminum bronze rods. Mueller Brass Co., Port Huron, Mich.
TUF-TAN—Lace leather. Graton & Knight Co., Worcester, Mass.
TUFSTUF—Tool handles. O. P. Link Handle Co., Salem, Ind.
TUJUR—Horizontal condensation pumps. Weil Pump Co., Chicago, Ill.
TUNGSTEN TEMPER — Woodworking knives. Stalter Edge Tool Co., Grand Rapids, Mich.
TURBINE—Lawn sprinkler.. W. D. Allen Mfg. Co., Chicago, Ill.
TURNBUCKLE — Portable pipe benches. Henderson Electric Co., Ampere, N. J.
TURNERLITE — Gasoline lanterns. The Turner Brass Works, Sycamore, Ill.
TURRET—General service pumps. Yeoman Brothers Co., Chicago, Ill.
TURXO—Backing. New York Belting & Packing Co., Passaic, N. J.
TUWAY — Strainers. Wright-Austin Co., Detroit, Mich.
TUXEDO—Bronze unions. Franklin Williams, Inc., Orange, N. J.
No. 12-1855—Bolt clippers. H. K. Porter, Inc., Everett, Mass.
TWENTIETH CENTURY — Balancing tools. Sundstrand Machine Tool Co., Rockford, Ill.
TWENTIETH CENTURY — Boiler tube and flue cleaners. William H. Murray, Richmond Hill, New York, N. Y.
20TH CENTURY — Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago, Ill.
20TH CENTURY—Packing. Consolidated Packing & Supply Co., New York, N. Y.
20TH CENTURY—Steel belt lacing and belt studs. Manufacturers' Belt Hook Co., Chicago, Ill.
20TH CENTURY — Water coolers, etc. Cordley & Hayes, New York, N. Y.
TWINLINE and **TWINROW** — Tapered roller bearings. Wm. E. Pratt Mfg. Co., Joliet, Ill.
TWISTAR—Brick and stone star drills. The Kilborn & Bishop Co., New Haven, Conn.
"TWO-BITS" ECONOMY — Cotter pins, lock washers, etc. Heiz & Heiz, Inc., Brooklyn, N. Y.
2 IN 1—Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
2-IN-1—Tap and reamer wrenches. Bergman Tool Mfg. Co., Buffalo, N. Y.
TWO IN ONE—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
TWO PART SPEED — Flange unions. Rhode Island Fittings Co., Hillsgrove, R. I.
2-XL—Hose. The Mechanical Rubber Co., Passaic, N. J.
TWO WAY—Machine pumps. The Ross Mfg. Co., Cleveland, Ohio.
TWYNCONE — Friction clutches. Link-Belt Co., Chicago, Ill.
TYFON—Signals and whistles for air and steam. Leslie Co., Lyndhurst, N. J.
TY-LOX—Wire cloth. The W. S. Tyler Co., Cleveland, Ohio.
TYPE 10—Air hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
TYPE 20—Oxy-acetylene hose. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
TYPE 30—Air hose. The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
TYPE 3030—Conveyor belting. The Cincinnati Rubber Mfg. Co., Cincinnati, O.
TYTE-UNYTE—Pipe joint cement. J. C. Whitlam Mfg. Co., Wadsworth, Ohio.

U

U. D. MACHINE — Combination punch shear and bar cutter. Buffalo Forge Co., Buffalo, N. Y.
U. S.—Injectors. American Injector Co., Detroit, Mich.
U. S.—Portland electric drills, grinders, buffers, polishers, etc. United States Electrical Tool Co., Cincinnati, Ohio.
U. S. GATE—Bronze valves. The Wm. Powell Co., Cincinnati, Ohio.
U-W — Self-locking hoists and tackle blocks, and wire rope fittings. The Upson-Walton Co., Cleveland, Ohio.
UINTAH—Heat resisting paint. American Asphalt Paint Co., Chicago, Ill.
UNBRAKO — Screws. Standard Pressed Steel Co., Jenkintown, Pa.
UNBREAKABLE—Hammers and hatchets. Estwing Mfg. Co., Rockford, Ill.
UNBREAKABLE—Nail pullers. The Bridgeport Hdwe. Mfg. Corp., Bridgeport, Conn.
UNDERFEED—Stokers. James Beggs & Co., Inc., New York, N. Y.
UNDERWRITERS — Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
UNIBLADE—Blowers. Autovent Fan & Blower Co., Chicago, Ill.
UNI-FILL—Wire scratch brushes. Pittsburgh Plate Glass Co., Brush Division, Baltimore, Md.
UNI-PULL DRIVE—Short-center flat belt drives. The Rockwood Mfg. Co., Indianapolis, Ind.
UNICOAT GLOSS—Mill white paint. H. Rinald Co., Philadelphia, Pa.
UNICON—Portable belt conveyors. Stephens-Adamson Mfg. Co., Aurora, Ill.
UNION — Chain hoists, trench braces, jacks, etc. J. H. Channon Corp., Chicago.
UNION—Cold pipe covering. Union Fibre Sales Co., Winona, Minn.

UMI

UNION—Cold finished steel. Peter A. Frasse & Co., Inc., New York, N. Y.
UNION CARBIDE—Calcium carbide. The Linde Air Products Co., New York, N. Y.
UNION COMPOSITE DISC—Bronze and iron body valves. The Wm. Powell Co., Cincinnati, Ohio.
UNIQUE—Flour and feed mill machinery, etc. Robinson Mfg. Co., Muncy, Pa.
UNIROLL—Belt conveyor idlers. Link-Belt Co., Chicago, Ill.
UNITED—Valves and fittings. National Lead Co., New York, N. Y.
UNITEX—Fire brick. Quigley Co., New York, N. Y.
UNITO—Drill rods. Kidd Drawn Steel Co., Aliquippa, Pa.
UNIVERSAL—Babbitt metal. Merchant & Evans Co., Philadelphia, Pa.
UNIVERSAL—Hack saw blades. Millers Falls Co., Greenfield, Mass.
UNIVERSAL—Hollow augers. The A. A. Wood & Sons Co., Atlanta, Ga.
UNIVERSAL — Hydraulic jacks and pumps. Richard Dudgeon, Inc., New York, N. Y.
UNIVERSAL—Industrial and automobile turntables. The Canton Foundry & Machine Co., Canton, Ohio.
UNIVERSAL—Measuring tapes, try and mitre squares. The Lufkin Rule Co., Saginaw, Mich.
UNIVERSAL—Oil cups. American Stamping Co., Battle Creek, Mich.
UNIVERSAL—Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
UNIVERSAL — Packings and gaskets. Johns-Manville Sales Corp., New York.
UNIVERSAL — Sheet metal folder and brake. Niagara Machine & Tool Works, Buffalo, N. Y.
UNIVERSAL—Union steam joints. Miles A. Connor, Lockport, N. Y.
UNIVERSAL—Vises. Emmert Mfg. Co., Waynesboro, Pa.
UNIVERSAL BELT OIL—Belt dressing. Burrel Belting Co., Chicago, Ill.
UNIVERSAL GIANT — Friction clutches, automatic belt contactors, hangers and tool grinders. T. B. Wood's Sons Co., Chambersburg, Pa.
UNIVERSAL IRON WORKER—Combination punch, shear and bar cutter. Buffalo Forge Co., Buffalo, N. Y.
UNIVERSAL TOOLS—Hand chain hoists. Coffing Hoist Co., Danville, Ill.
UNIVERSE—House force pumps. Goulds Pumps, Inc., Seneca Falls, N. Y.
UNIVERSE — Oil pumps. The Lunkenheimer Co., Cincinnati, Ohio.
UNXLD — Damper quadrants. Parker-Kalon Corp., New York, N. Y.
U. S. TYPE—Metallic packings. Northern Metallic Packing Co., St. Paul, Minn.
USACO — Air compressors, spray guns, hydraulic hoists, etc. United States Air Compressor Co., Cleveland, Ohio.
USACO—Asbestos packings. United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
USCO—Aluminum products. U. S. Reduction Co., East Chicago, Ind.
USE-EM-UP—Drill sleeves and sockets. Scully-Jones & Co., Tool Division, Chicago, Ill.
USETCO—Rotary files. United States Electrical Tool Co., Cincinnati, Ohio.
USHCO—Hammers and wrenches. U. S. Hame Co., Buffalo, N. Y.
USUCO—Unions. United Superior Union Co., Inc., Brooklyn, N. Y.
UTAH—Elevator belting. Boston Woven Hose & Rubber Co., Cambridge, Mass.
UTICA—Die steel. Ludlum Steel Co., Watervliet, N. Y.
UTILITY—Contractors' hoists. Ingersoll-Rand Co., New York, N. Y.
UTILITY — Counterbores, countersinks, core drills, reamers, etc. The J. C. Glenzer Co., Detroit, Mich.
UTILITY—Door mats and safety runners. Cactus Mat & Patch Mfg. Co., Los Angeles, Calif.
UTILITY—Electric floor machines. The Kent Company, Inc., Rome, N. Y.
UTILITY—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
UTILITY—Tool handles. Hartwell Brothers, Memphis, Tenn.
UTILITY—Truck casters. Saginaw Stamping & Tool Co., Saginaw, Mich.
UTILITY WAVE CUT—Files. Wave Cut File & Tool Corp., New York, N. Y.

V

V-A—Paint, metal primer and dryer. American Asphalt Paint Co., Chicago, Ill.
V-B—Balata belt. Victor-Balata & Textile Belting Co., New York, N. Y.
V-G — Lights. National Carbide Sales Corp., New York, N. Y.
V & B — Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago.
V.R.D.—Variable speed drive. Link-Belt Co., Chicago, Ill.
V-FLAT—Star drills for power hammers. The Cincinnati Tool Co., Cincinnati, O.
VALBESTINE—Valve stem packing. General Asbestos & Rubber Division of Raybestos-Manhattan, Inc., North Charleston, S. C.
VALDURA—Asphalt aluminum paint and enamelized paint. American Asphalt Paint Co., Chicago, Ill.
VALLEY FORGE—Packings. Ehret Magnesia Mfg. Co., Valley Forge, Pa.
VALUE—Hammers, hatchets and axes. Vaughan & Bushnell Mfg. Co., Chicago.
VANO—Industrial and mine ventilating fans. Coppus Engineering Corp., Worcester, Mass.
VAPORITE—Asbestos sheet packing. A. W. Chesterton Co., Boston, Mass.
VARIDRIVE — Motors. U. S. Electrical Mfg. Co., Los Angeles, Calif.
VEELOS — Balata belting and balata valves. Manheim Mfg. & Belting Co., Manheim, Pa.
VEELOS V—V belting. Manheim Mfg. & Belting Co., Manheim, Pa.
VELO—Motor oil. Keystone Lubricating Co., Philadelphia, Pa.
VELOX — Grease. Keystone Lubricating Co., Philadelphia, Pa.
VELVET—Hose. Electric Hose & Rubber Co., Wilmington, Del.
VELVET—Plastic packing. Federal Metallic Packing Co., Wakefield, Mass.
VELVET—Ply goods. John Rauschenberger Co., Milwaukee, Wis.
VELVET-GRIP—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
VENANGO—Grease cups. Keystone Lubricating Co., Philadelphia, Pa.
VENOSTONE—Cement floor primer. The Reardon Co., St. Louis, Mo.
VENTAIR—Industrial and mine ventilating fans. Coppus Engineering Corp., Worcester, Mass.
VENTURA—Blowers. American Blower Corp., Detroit, Mich.
VERITAS—Emery wheel dressers. Sandvik Saw & Tool Corp., Minneapolis, Minn.
VERTEX—Asbestos furnace cement. J. C. Whitlam Mfg. Co., Wadsworth, Ohio.
VERY BEST—Loom pickers, straps, etc. E. H. Jacobs Manufacturing Co., Danielson, Conn.
VESUVIUS—Oil, gas or combustion burner. Davison Combustion Co., Pittsburgh, Pa.
VESUVIUS—Steam traps. Nason Manufacturing Co., New York, N. Y.
VIBRATOR—Vibrating screens. Stephens-Adamson Mfg. Co., Aurora, Ill.
VICCO—Hand soap. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTPAC — Compressed asbestos sheet. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTOR—Bolt clippers. Roberts Manufacturing Co., Everett, Mass.
VICTOR—Brine and ammonia pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.
VICTOR—Float traps. Wright-Austin Co., Detroit, Mich.
VICTOR—Cross cut saws. E. C. Atkins and Co., Indianapolis, Ind.
VICTOR—Garden hose reels. Wirt & Knox Mfg. Co., Philadelphia, Pa.
VICTOR—Lanterns. R. E. Dietz Co., New York, N. Y.
VICTOR—Lawn sprinkler. W. D. Allen Mfg. Co., Chicago, Ill.
VICTOR—Machinists' vises. The Charles Parker Co., Meriden, Conn.
VICTOR—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
VICTOR—Packings and gaskets. Johns-Manville Sales Corp., New York, N. Y.
VICTOR—Push brooms and brushes. The Joseph Lay Co., Portland, Ind.
VICTOR—Rubber hose. Mulcomroy Co., Inc., Philadelphia, Pa.
VICTOR—Steam traps. Wright-Austin Co., Detroit, Mich.
VICTOR—Steel rivets. The Champion Rivet Co., Cleveland, Ohio.
VICTOR—Suction hose. The Mechanical Rubber Co., Passaic, N. J.
VICTOR ACME—Blowers and gas pumps. Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
VICTORITE—Fibrous sheet packing. Victor Mfg. & Gasket Co., Chicago, Ill.
VICTORY—Babbitt metal. The Ohio Metal Co., Columbus, Ohio.
VICTORY—Chain hoists. Sampson Tool Co., Inc., New York, N. Y.
VIGASCO—Gasket cement. Victor Mfg. & Gasket Co., Chicago, Ill.
VIGILANT—Garden hose. Boston Woven Hose & Rubber Co., Cambridge, Mass.
VIGILANT—Water columns. The Lunkenheimer Co., Cincinnati, Ohio.
VIGO—Leather Belting. Foss & Bump, Inc., Springfield, Mass.
VIKING—Coping saws. Forsberg Mfg. Co., Bridgeport, Conn.
VIKING—Hack saw frames. Forsberg Mfg. Co., Bridgeport, Conn.
VIKING—Hose and packing. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
VIKING—Screw drivers. Forsberg Mfg. Co., Bridgeport, Conn.
VINDICATOR—Sheet packing. Rhopac Products Corp., Chicago, Ill.
VINTEX—Paint. The Reardon Co., St. Louis, Mo.
VISAFLAME—Safety control. The Mercoid Corp., Chicago, Ill.
VISUVIUS—Gas and oil burners. Davison Combustion Co., Pittsburgh, Pa.
VITALIFE—Wire rope lubricants and protectors. Wire Rope Lubricating Co., Trenton, N. J.
VIXEN—Files. Heller Bros. Co., Newark, N. J.
VOLCANO—Sheet packing. New York Belting & Packing Co., Passaic, N. J.
VOLUNTEER—Hose and packing. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
VORCOLITE—Paint. The Vortex Manufacturing Co., Cleveland, Ohio.
VOSPER—Pipe cutters. The Toledo Pipe Threading Machine Co., Toledo, Ohio.
VOSTA—Loose pulley oiler. The Lunkenheimer Co., Cincinnati, Ohio.
VULCABESTON—Asbestos packing. Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
VULCAN—Anvils, jacks and blacksmiths' tools. Illinois Iron & Bolt Co., Carpentersville, Ill.
VULCAN—Axes, hammers, etc. Kelly Axe & Tool Works of the American Fork & Hoe Co., Charleston, W. Va.
VULCAN—Chain tongs, tool holders and chain pipe vises. J. H. Williams & Co., New York, N. Y.
VULCAN—Files. Henry Disston & Sons, Inc., Tacony, Philadelphia, Pa.
VULCAN—Fire extinguishers. Knight & Thomas, Inc., Boston, Mass.
VULCAN—Hose and packing. New York Belting & Packing Co., Passaic, N. J.
VULCAN and **VULCAN SUPERIOR**—Pipe tongs, vises, eye bolts, hooks, gauges, etc. J. H. Williams & Co., New York, N. Y.
VULCAN—Universal joints. The Gray & Prior Machine Co., Hartford, Conn.
VULCANITE KROME—Belting, packing, mechanical leathers. The Chicago Rawhide Mfg. Co., Chicago, Ill.
VULCANIZER'S SPECIAL—Tool grinders. Clizbe Bros. Mfg. Co., Plymouth, Ind.
VULCOT—Waste baskets. Fibre Specialty Mfg. Co., Kennett Square, Pa.

W

W & B—Screw wrenches. J. H. Williams & Co., New York, N. Y.
W. E. W.—Valves. William E. Williams Valve Corp., New York, N. Y.
W. H. S.—Speed reducers, hangers, pulleys, etc. Winfield H. Smith, Inc., Springville, N. Y.
W. P. S.—Gaskets, packing, washers, etc. Western Packing & Supply Co., Chicago, Ill.
W. & McD.—Valves, strainers, regulators, etc. Watson & McDaniel Co., Philadelphia, Pa.
W-W.—Cotter pins and automotive assortments. Western Wire Products Co., St. Louis, Mo.
WAIT—Steam turbines. Dean-Hill Pump Co., Anderson, Ind.
WAJAX D D V—Portable fire pumps. Fenwick-Reddaway Mfg. Co., Newark, N. J.
WALCO—Pipe wrench. Walworth Co., New York, N. Y.
WALDEN WORCESTER—Wrenches. Stevens Walden, Inc., Worcester, Mass.
WALLABOUT — Hose. Hewitt Rubber Corp., Buffalo, N. Y.
WALRUS—Belting cement. Narragansett Belting Co., Providence, R. I.
WALRUS—Glass oil pumps. The D. T. Williams Valve Co., Cincinnati, Ohio.
WALRUS — Polishing leather. Greene, Tweed & Co., New York, N. Y.
WARDEN—Oil filters. The Burt Manufacturing Co., Akron, Ohio.
WARREN—Filers and softeners. American Water Softener Co. (And by purchase New York Continental Jewell Filtration Co.), Philadelphia, Pa.
WARRIOR—Independent sight feeds. The D. T. Williams Valve Co., Cincinnati, O.
WARWICK—Dredge chain, etc. Newhall Chain Forge & Iron Co. (Division of Henry B. Newhall Corp.), New York, N.Y.
WASCO—Forged steel fittings. The Watson-Stillman Co., Roselle, N. J.
WASHITA—Oil stones. Norton Pike Co., Pike, N. H.
WASTE METER—Carbon dioxide and temperature recorders. Uehling Instrument Co., Paterson, N. J.
WATER OAK—Waterproof leather belting. Holyoke Belting Co., Holyoke, Mass.
WATERIDE BRAND—Waterproof leather belting. F. Raniville Co., Grand Rapids, Mich.
WATERSHED—Belting. J. E. Rhoads & Sons, Philadelphia, Pa.

UMI

WATERSNAKE — Hose. Home Rubber Co., Trenton, N. J.
WATROUS—Plumbing valves, liquid soap dispensers, etc. Imperial Brass Manufacturing Co., Chicago, Ill.
WAVERLESS FLAME—Oxygen welding and cutting regulators. K-G Welding & Cutting Co., Inc., New York, N. Y.
WAXTIC—Bar belt dressing for leather and rubber belts. Norton Belting Co., Wellesley Hills, Mass.
WAYNE—Leather belting. E. P. Alexander & Son, Inc., Philadelphia, Pa.
WE-FU-GO—Water filters and softeners. Wm. B. Scalfe & Sons Co., Oakmont, Pa.
WEAR WELL—Tire chains. The Cleveland Chain & Mfg. Co., Cleveland, Ohio.
WEARPRUF—Hand leathers. Gross Rubber Co., Sharon, Pa.
WEARSO—Mechanical rubber goods. Pioneer Rubber Mills, San Francisco, Calif.
WEARTEX—Solid interwoven belt. Victor Balata & Textile Belting Co., New York, N. Y.
WEB-FACE BAKELITE—Abrasive discs. Charles H. Besly and Co., Chicago, Ill.
WEDGEBELT PULLEYS—V-belt sheaves. The American Pulley Co., Philadelphia, Pa.
WEDGELOCK—Steel shelving. The Berger Mfg. Co., Canton, Ohio.
WELD-A-CAST—Fluxes. Cortland Welding Compound Co., Cortland, N. Y.
WELD BILT—Lift truck platforms, etc. West Bend Equipment Corp., West Bend, Wis.
WELDA — Lenses. Harry Buegeleisen, Brooklyn, N. Y.
WELDOLETS — Welding pipe fittings. Bonney Forge & Tool Works, Allentown, Pa.
WERLIN—Natural gas burners and mixers. Triumph Brass Co., Columbus, O.
WESTAN—Round belting. Western Rawhide & Belting Co., Milwaukee, Wis.
WESTCOTT—Wrenches. Keystone Mfg. Co., Buffalo, N. Y.
WESTERN—Fire hose. Pioneer Rubber Mills, San Francisco, Calif.
WESTERN—Grinders and polishing machines. Cutter Machine Co., St. Louis.
WESTERN—Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
WESTITE — Metallic packing. Western Packing & Supply Co., Chicago, Ill.
WETORDRY—Sandpaper. Minnesota Mining & Mfg. Co., St. Paul, Minn.
WETSTONE—Leather belting. W. S. Nott Co., Minneapolis, Minn.
WHALE—Belting. The Chicago Rawhide Mfg. Co., Chicago, Ill.
WHALE BRAND—Hack saw blades. The Forsberg Mfg. Co., Bridgeport, Conn.
WHALEBONE—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHIPCORD—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHIPPET — Leather belting. Johnson Belting Co., New York, N. Y.
WHIRLPOOL—Leather belting. Charles Bond Co., Philadelphia, Pa.
WHIRLWIND—Compressed air purifier. Wright-Austin Co., Detroit, Mich.
WHIRLWIND—Cylinder grinders. Keystone Mfg. Co., Buffalo, N. Y.
WHITE CROSS—Belting, hose and packing. Home Rubber Co., Trenton, N. J.
WHITE DIAMOND—Buffing compositions. Matchless Metal Polish Co., Chicago, Ill.
WHITE OAK—Leather belting. Chas. A. Schieren Co., New York, N. Y.
WHITE JACKET—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WHITE STAR—Bronze and iron body valves. The Wm. Powell Co., Cincinnati.
WHITE STRIP—Leather belting. Chicago Belting Co., Chicago, Ill.
WHITENRED — Wrought conduit pipe. Central Tube Co., Pittsburgh, Pa.
WHITING—Saw sets. The Kilborn and Bishop Co., New Haven, Conn.
WICO—Ash and garbage cans. The Witt Cornice Co., Cincinnati, Ohio.
WIL-LITE—Mill white. The Wills Products Co., New York, N. Y.
WILBUR — Fire extinguishers. Wil-X-Mfg. Corp., Brooklyn, N. Y.
WILCO—Pipe and bolt threading machines. Oster-Williams, Cleveland, O.
WILFORD—Flax cloth. The Upson-Walton Co., Cleveland, Ohio.
WILL-CALK-IT—Calking material. The Willis Products Co., New York, N. Y.
WILL-GRAY-IT—Putty. The Wills Products Co., New York, N. Y.
WILLIAMS—Pole mounts. Malleable Iron Fittings Co., Branford, Conn.
WILLIE WILLIAMS — Portable pipe threading machines. Oster-Williams Cleveland, Ohio.
WILLSEMENT — Pipe joint compounds. The Wills Products Co., New York, N. Y.
WILSON—Gate valves. Everlasting Valve Co., Jersey City, N. J.
WILSON — Heater brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
WILSON—Welding wire and accessories. Peter A. Frasse & Co., Inc., New York.
WIN—Speed reducers, hangers, pulleys, etc. Winfield H. Smith, Inc., Springville, N. Y.
WINDY—Fans and blowers. Sutorbilt Corp., Los Angeles, Calif.
WINGFOOT—Belting and hose. The Goodyear Tire & Rubber Co., Inc., Akron, O.
WINGO—Grease cups. The Lunkenheimer Co., Cincinnati, Ohio.
WIRE CLAD—Brooms. The Osborn Manufacturing Co., Cleveland, Ohio.
WISOLD—Sheet packing and pump valves. Consolidated Packing & Supply Co., New York, N. Y.
WISSCO—Wire. Wickwire Spencer Steel Co., New York, N. Y.
WIXOM—Hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
WIZARD—Belt dressing. Richmond Belt Dressing Mfg. Co., Inc., Richmond, Va.
WIZARD—Plain engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.
WOLF—Hose couplings. Boston Woven Hose & Rubber Co., Cambridge, Mass.
WOLF—Portable timber sawing machines. Reed-Prentice Corp., Worcester, Mass.
WOLF—Safety lamps. Mine Safety Appliances Co., Pittsburgh, Pa.
WOLVERINE—Lubricators. Essex Brass Corp., Detroit, Mich.
WOLVERINE — Measuring tapes. The Lufkin Rule Co., Saginaw, Mich.
WOLVERINE — Wheelbarrows. Lansing Co., Lansing, Mich.
WOMPCO—Metal. Worthington Pump and Machinery Corp., Harrison, N. J.
WONDER—Concrete mixers. Construction Machinery Co., Waterloo, Iowa.
WONDER—Gas engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.
WONDERTAN—Leather belting. F. W. McLanathan & Son, Lawrence, Mass.
WOODCUT—Lintersaw gummer files. The A. C. Wood & Sons Co., Atlanta, Ga.
WOODPECKER—Air vibrators. Sutorbilt Corp., Los Angeles, Calif.
WOOSTER—Belting. Duryea Manufacturing Co., Bayonne, N. J.
WORCESTER—Gauge glass cutters and flue brushes. Worcester Brush & Scraper Co., Div. Mason-Worcester Co., Worcester, Mass.
WORKACE—Woodworking machinery. J. D. Wallace & Co., Chicago, Ill.
WORKWELL—Sifter brush belting and brushes. Victor Balata & Textile Belting Co., New York, N. Y.
WORLD—Belting and hose. Home Rubber Co., Trenton, N. J.
WORRALL—Cut-off couplings. Kinney Manufacturing Co., Boston, Mass.
WORTHY—Sight feed gas engine lubricators. The D. T. Williams Valve Co., Cincinnati, Ohio.
WYANDOT—Plain engine lubricators. The D. T. Williams Valve Co., Cincinnati, O.

X

X-TRACK-TOR—Car unloaders. The Jeffrey Manufacturing Co., Columbus, Ohio.
X F SWISS PATTERN—Files. Nicholson File Co., Providence, R. I.
XL BRAND—Mechanical leathers, hydraulic packings; leather, fibre, felt and composition washers. Excelsior Leather Washer Mfg. Co., Rockford, Ill.
XL WATERPROOF—Leather belting and packings. Detroit Oak Belting Co., Detroit, Mich.
XLNC—Dressings. Commercial Chemical Co., Boston, Mass.
X-RAY—Flood lights. Curtis Lighting, Inc., Chicago, Ill.
XX—Dredge chain. The McKay Co., Pittsburgh, Pa.
XX—Hose, packing, matting and cement. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.
XXCY—Loom pickers. E. H. Jacobs Manufacturing Co., Danielson, Conn.
XACTO—Displacement meters for gasoline and oils. S. F. Bowser & Co., Fort Wayne, Ind.

Y

YANKEE — Carpenters' and mechanics' tools. North Bros. Mfg. Co., Philadelphia, Pa.
YANKEE—Drill grinders. Covel-Hanchett Co., Big Rapids, Mich.
YANKEE B—Stone drills. The Dallett Co., Philadelphia, Pa.
YARWAY—Valves, spray nozzles, water columns, gauges, expansion joints, etc. Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa.
YELLOW LABEL—Tool steels. William Jessop & Sons, Inc., New York, N. Y.
YELLOW STRAND—Wire rope. Broderick & Bascom Rope Co., St. Louis, Mo.
YEOMAN—Belting and hose. The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc., Passaic, N. J.
YUKON—Pipe covering. Acme Asbestos Covering & Flooring Co., Chicago, Ill.

Z

ZENITH—Lawn sprinklers. W. D. Allen Mfg. Co., Chicgo, Ill.
ZENITH—Pump valves. Rhopac Products Corp., Chicago, Ill.
ZERO—Sight feed lubricators. Detroit Lubricator Co., Detroit, Mich.
ZULU—Hose. Diamond Mechanical Goods Division of The B. F. Goodrich Co., Akron, Ohio.

UMI

NAMES AND ADDRESSES

of Manufacturers of Mill, Mine, Power and General Industrial Supplies, Equipment and Tools Whose Products are Shown in the Classified List.

IN this section are arranged alphabetically the names of manufacturers of mill, mine, power and general industrial supplies, equipment and tools whose products are listed in the Classified List together with their addresses. Only one address is given for each company, that being its main or general sales office, or the one otherwise specified by the company.

Disregard individuals' initials or the word "The" in locating the name of a manufacturer. The name of a company such as D. B. Gorboud & Co., would be listed "Gorboud, D. B., & Co." Where the prefix "The" is used, a company is listed as follows: "Morgan Co., The." Where initials form the main part of a name, as, for instance, "B. & R. Pipe Co.," the names of such companies are grouped with others of a similar type at the start of listings appearing under the first initial. For instance, "B. & R. Pipe Co." would be found among the first few names appearing under "B".

For convenience, we have generally used "Co." instead of "Company" and "Corp." instead of "Corporation," regardless of whether the company or corporation spells out the word. Similarly, we use "Inc." uniformly instead of "Incorporated."

A

Abrasive Co. Division of Simonds Saw and Steel Co., Tacony & Fraley Sts., Philadelphia, Pa.
Ace Drill Co., 13835 Jennings St., Detroit, Mich.
Acheson Manufacturing Co., Fleet St. & P. & L. E. R. R., Rankin, Pa.
Acme Asbestos Covering & Flooring Co., 1301 Fulton St., Chicago, Ill.
Acme Machine Products Co., 500 W. Willard St., Muncie, Ind.
Adjutable Clamp Co., 413 N. Ashland Ave., Chicago, Ill.
Advance Car Mover Co., Inc., 112 N. Outegamie St., P. O. Box 536, Appleton, Wis.
Advance Packing & Supply Co., 808 Washington Blvd., Chicago, Ill.
Aeroil Burner Co., Inc., 561 Park Ave., West New York, N. J.
Air Reduction Sales Co., Lincoln Bldg., E. 42nd St., New York, N. Y.
Air-Way Pump Co., 625 W. Jackson Blvd., Chicago, Ill.
Akron Metallic Casket Co., 189 N. Union St., Akron, Ohio.
Aldon Co., The, 3338 Ravenswood Ave., Chicago, Ill.
Alemite Corp., 1826 Diversey Parkway, Chicago, Ill.
Alexander Brothers, Inc., 406 N. Third St., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Third & Huntington Sts., Philadelphia, Pa.
Allen & Billmyre Co., Inc., 814 Grand Central Palace, New York, N. Y.
Allen Mfg. Co., The, 133 Sheldon St., Hartford, Conn.
Allen, W. D., Mfg. Co., 566 W. Lake St., Chicago, Ill.
Allentown Leather Belting Co., 722 Linden St., Allentown, Pa.
Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Allis, Louis, Co., The, 427 E. Stewart St., Milwaukee, Wis.,
All-Steel Equip Co., Inc., Aurora, Ill.
Aluminum Company of America, Gulf Bldg., Pittsburgh, Pa.
Aluminum Industries, Inc., 2416 Beekman St., Cincinnati, Ohio.
Alvord-Polk Tool Co., 110-175 Gerhard St., Millersburg, Pa.
American Asphalt Paint Co., 43 E. Ohio St., Chicago, Ill.
American Blower Corp., 6000 Russell St., Detroit, Mich.
American Brake Materials Corp., 4660 Merritt Ave., Detroit, Mich.
American Brass Co., The, American Metal Hose Branch, P. O. Box 791, Waterbury, Conn.
American Cable Co., Inc., Wilkesbarre, Pa.
American Cap & Set Screw Co., Waukegan, Ill.
American Chain Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
American Die & Tool Co., Inc., 211 Buttonwood St., Reading, Pa.
American Filter Co., 655-665 Buffum St., Milwaukee, Wis.
American Fork & Hoe Co., Cleveland, Ohio.
American Foundry & Mfg. Co., 11th and Hebert St., St. Louis, Mo.
American Handle Co., P. O. Box 186, Jonesboro, Ark.
American Hoist & Derrick Co., 63 S. Robert St., St. Paul, Minn.
American Injector Co., 1481 14th St., Detroit, Mich.
American-LaFrance and Foamite Corp., 100 E. LaFrance St., Elmira, N. Y.
American Non-Gran Bronze Corp., Lincoln Highway, Berwyn, Pa.
American Pulley Co., The, 4200 Wissahickon Ave., Philadelphia, Pa.
American Roller Bearing Co., 416 Melwood Ave., Pittsburgh, Pa.
American Rolling Mill Co., Middletown, O.
American Sand-Banum Co., Inc., 342 Madison Ave., New York, N. Y.
American Sanitary Rag Co., 1001 W. North Ave., Chicago, Ill.
American Saw & Mfg. Co., 67-71 Boylston St., Springfield, Mass.
American Screw Co., 21 Stevens St., Providence, R. I.
American Solder & Flux Co., Wayne Ave. & Berkley, Philadelphia, Pa.
American Steam Pump Co., Battle Creek, Mich.
American Steel Scraper Co., The, Wilkinson & Court Sts., Sidney, Ohio.
American Steel & Wire Co., 208 S. La Salle St., Chicago, Ill.
American Steel Wool Mfg. Co., Inc., 9-13 Desbrosses St., New York, N. Y.
American Swiss File & Tool Co., 410 Trumbull St., Elizabeth, N. J.
Ames, B. C., Co., Off Lexington St., Waltham, Mass.
Ames. Baldwin, Wyoming Shovel Co., Parkersburg, W. Va.
Ampco Metal, Inc., 3830 W. Burnham St., Milwaukee, Wis.
Amthor Testing Instrument Co., Inc., 309 Johnson St., Brooklyn, N. Y.
Anaconda Wire & Cable Co., 25 Broadway, New York, N. Y.
Anderson Bros. Mfg. Co., 1907 Kishwaukee St., Rockford, Ill.
Anderson, V. D., Co., The, 1935 W. 96th St., Cleveland, Ohio.
Angle Steel Stool Co., Plainwell, Mich.
Anthes Force Oiler Co., 20th & Avenue M, Fort Madison, Iowa.
Anti-Borax Compound Co., 1506 Wall St., Fort Wayne, Ind.
Appleton-Atlas Car Movers Corp., 2947 N. 30th St., Milwaukee, Wis.
Appleton Electric Co., 1701-29 Wellington Ave., Chicago, Ill.
Arguto Oiless Bearing Co., 149 Berkley St., Wayne Junction, Philadelphia, Pa.
Arion Steel Co., The, 261 Franklin St., Boston, Mass.
Armour Sand Paper Works, 1355 W. 31st St., Chicago, Ill.
Armstrong-Blum Mfg. Co., 333 N. Francisco Ave., Chicago, Ill.
Armstrong-Bray & Co., 308 Sheldon St., Chicago, Ill.
Armstrong Bros. Tool Co., 305 N. Francisco Ave., Chicago, Ill.
Armstrong Cork & Insulation Co., Industrial Division, Lancaster, Pa.
Armstrong Machine Works, 816 Maple St., Three Rivers, Mich.
Armstrong Manufacturing Co., 304 Knowlton St., Bridgeport, Conn.
Armstrong Truck Co., North Wales, Pa.
Arro Expansion Bolt Co., Marion, Ohio.
Arrow Boiler Compound Co., 13 S. 1st St., St. Louis, Mo.
Art Metal Construction Co., Jamestown, N. Y.
Asbestos Mfg. Co., P. O. Box 190, Huntington, Ind.
Asch & Co., Inc., 254 W. 54th St., New York, N. Y.
Athol Machine & Foundry Co., 82 South St., Athol, Mass.
Atkins, E. C., and Co., 402 S. Illinois St., Indianapolis, Ind.
Atlantic Manufacturing Co., 104 Walnut St., Wilmington, Del.
Atlantic Metal Hose Co., Inc., 123 West 64th St., New York, N. Y.
Atlas-Ansonia Co., 54-62 Grant St., New Haven, Conn.
Atlas Bolt & Screw Co., The, 1130 Ivanhoe Rd., Cleveland, Ohio.
Atlas Brass Foundry Co., The, 1000 S. Front St., Columbus, Ohio.
Atlas Leather Co., Caseyville, Ill.

Atlas Press Co., 1849 Pitcher St., Kalamazoo, Mich.
Atlas Tack Corp., Fairhaven, Mass.
Auburn Ball Bearing Co., 75 Clarissa St., Rochester, N. Y.
Auburn Leather Goods Co., 14 Sigourney St., Hartford, Conn.
Aurora Pump Co., 619 Loucks St., Aurora, Ill.
Aurora Steel Products Co., 150 3rd St., Aurora, Ill.
Automatic Primer Co., 111 W. Washington St., Chicago, Ill.
Autovent Fan & Blower Co., 1805 N. Kostner Ave., Chicago, Ill.
Axelson Manufacturing Co., Ltd., 6160 S. Boyle Ave., Los Angeles, Calif.

B

Babbitt Steam Specialty Co., 55 S. Water St., New Bedford, Mass.
Babcock, W. W., Co., The, 15 Delaware St., Bath, N. Y.
Bache, Semon, & Co., 636 Greenwich St., New York, N. Y.
Badger Fire Extinguisher Co., 31 St. James Ave., Boston, Mass.
Baird Machine Co., The, Bridgeport, Conn.
Baker Brothers, Inc., Post St., Toledo, Ohio.
Baker-Hansen Mfg. Co., 1900-1912 Park St., Alameda, Calif.
Baldwin Belting & Leather Co., Inc., 85 Chambers St., New York, N. Y.
Baltimore Belting Co., 23 and 25 South Gay St., Baltimore Md.
Baltimore Valve Corp., 2300 Sinclair Lane, Baltimore, Md.
Bantam Ball and Roller Bearing Co., 3701 West Sample St., South Bend, Ind.
Barber-Colman Co., Loomis St., Rockford, Ill.
Barcalo Mfg. Co., 225 Louisiana St., Buffalo, N. Y.
Barco Manufacturing Co., 1801 Winnemac Ave., Chicago, Ill.
Barnes Drill Co., 850 Chestnut St., Rockford, Ill.
Barnes, W. F. & John, Co., 301 S. Water St., Rockford, Ill.
Barnes, W. O., Co., Inc, 1297 Terminal Ave., Detroit, Mich.
Barrett-Cravens Co., 3250 W. 30th St., Chicago, Ill.
Barrett, Leon J., Co., The, Box 378, Worcester, Mass.
Barrett, Wm. L., Co., 30 School St., Bristol, Conn.
Bartlett, Edwin E., Co., 41 Crown ,St. Nashua, N. H.
Bartlett Hayward Co., The, 200 Scott St., Baltimore, Md.
Bartlett Manufacturing Co., 3003 East Grand Blvd., Detroit, Mich.
Barton, H. H., & Son Company, Drawer No. 74, Troy, N. Y.
Bassick Co., The, 38 Austin St., Bridgeport, Conn.
Bastian-Blessing Co., 240 E. Ontario St., Chicago, Ill.
Bastian-Morley Co., Truesdell Ave., Laporte, Ind.
Batavia Clamp Co., Inc., Batavia, N. Y.
Bate Boiler Efficiency Co., Elm & Sansom Sts., Conshohocken, Pa.
Bauer Manufacturing Co., The, 1429 E. Bowman St., Wooster, Ohio.
Baum's Castorine Co., 200 Mathew St., Rome, N. Y.
Bay State Emery Wheel Co., Not Inc., 54 Hermon St., Worcester, Mass.
Bay State Stamping Co., 380 Chandler St., Worcester, Mass.
Bay State Tap & Die Co., 75 Chauncy St., Mansfield, Mass.
Beach Mfg. Co., Mill & High Sts., Montrose, Pa.
Beall Tool Co., P. O. Drawer 38, S. Alton, Ill.
Bearium Metals Corporation, 258 State St., Rochester, N. Y.
Beaumont, R. H., Co., 319 Arch St., Philadelphia, Pa.
Beckley Perforating Co., North Ave., Garwood, N. J.
Beebe Bros., 2724 Sixth Ave., S., Seattle, Wash.
Behr-Manning Corp., Troy, N. Y.
Belden Machine Co., The, Whalley & West Rock Ave., New Haven, Conn.
Belfield, H., Co., 435 N. Broad St., Philadelphia, Pa.
Bellevue Industrial Furnace Co., 2971 Bellevue Ave., Detroit, Mich.
Belmont Packing & Rubber Co., The, Butler & Sepviva St., Philadelphia, Pa.
Belmont Smelting & Refining Works, Inc., 310 Belmont Ave., Brooklyn, N. Y.
Beltonic Products Co., N. Leclaire & Moffat St., Chicago, Ill.
Bemis & Call Co., 125 Main, Springfield, Mass.
Bendix Products Corporation, South Bend, Ind.
Benjamin Electric Manufacturing Co., Northwest Highway & Seegers Rd., Des Plaines, Ill.
Benson, Alexander R., Co., Inc., 1070 South Bay Road, Hudson, N. Y.
Berbecker, Julius, & Sons, Inc., 15 E. 26th St., New York, N. Y.
Berger Manufacturing Co., The (Division of Republic Steel Corporation), 1038 Belden Ave., N. E., Canton, Ohio.
Bergman Tool Mfg. Co., 1573-75 Niagara St., Buffalo, N. Y.
Bernard, Charles A., Machine Co., 210 Main St., Gardner, Mass.
Bernz, Otto, Co., Inc., 280 Lyell Ave., Rochester, N. Y.
Besly, Charles H., and Co., 118 N. Clinton St., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Bickford, H., & Co., 1002 Union Ave., Lakeport, N. H.
Billings & Spencer Co., The, 1 Laurel St., Hartford, Conn.
Binghamton Flexible Shaft Co., Maple Ave., Johnson City, N. Y.
Binks Manufacturing Co., 3114-40 Carroll Ave., Chicago, Ill.
Bishop & Babcock Sales Co., The, 4901-4915 Hamilton Ave., N. E., Cleveland, Ohio.
Black & Decker Mfg. Co., The, 600 E. Pennsylvania Ave., Towson, Md.
Black Diamond Paint & Varnish Works, Inc., The, 1209-1217 Bank St., Cincinnati.
Blacker Engineering Corp., Grand Central Terminal, New York, N. Y.
Blackhawk Mfg. Co., 120 N. Broadway, Milwaukee, Wis.
Blaw-Knox Co., Pittsburgh, Pa.
Blount, J. G., Co., Woodland St., Everett, Mass.
Blue Seal Chemical Co., 177-179 W. Westfield Ave., Roselle Park, N. J.
Boekel, Wm., & Co., 509-19 Vine St., Philadelphia, Pa.
Boice, W. B. & J. E., 1730 Norwood Ave., Toledo, Ohio.
Bond, Charles, Co., 617 Arch St., Philadelphia, Pa.
Bond Foundry and Machine Co., Manheim, Pa.
Bonner & Barnewall, Inc., 92 Bleecker St., New York, N. Y.
Bonney Forge & Tool Works, Allentown, Pa.
Booth Felt Co., Inc., The, 463 19th St., Brooklyn, N. Y.
Borden Co., The, 310 Dana St., Warren, O.
Bordo, L. J., Co., Inc., 115 New St., Glenside, Pa.
Boston Gear Works, Inc., North Quincy, Mass.
Boston & Lockport Block Co., 102 Conder St., East Boston, Mass.
Boston Woven Hose & Rubber Co., 29 Hampshire St., Cambridge, Mass.
Botfield Refractories Co., Swanson and Clymer Sts., Philadelphia, Pa.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Bousman Mfg. Co., 1157-9 Plainfield Ave., N. E., Grand Rapids, Mich.
Bowser, S. F., & Co., Fort Wayne, Ind.
Boyer Fire Apparatus Co., Logansport, Ind.
Bradlee & Co., Inc., 1615 N. Delaware Ave., Philadelphia, Pa.
Bradley Washfountain Co., 2203 W. Michigan St., Milwaukee, Wis.
Braender Drainer Co., Inc., The, 439 4th Ave., New York, N. Y.
Breeze Corporations, Inc., 24 S. 6th St., Newark, N. J.
Breuer Electric Manufacturing Co., 852 Blackhawk St., Chicago, Ill.
Bridgeport Hdwe. Mfg. Corp., The, 461 Iranistan Ave., Bridgeport, Conn.
Briggs & Stanton Corp., 2711 N. 13th St., Milwaukee, Wis.
Bristol Brass Corp., The, 101 Broad St., Bristol, Conn.
Bristol Co., The, Waterbury, Conn.
Broderick & Bascom Rope Co., 4203 N. Union Blvd., St. Louis, Mo.
Brohard Co., The, State Rd. & Shelmire St., Philadelphia, Pa.
Brooklyn Rawhide Mfg. Co., 434 Manhattan Ave., Brooklyn, N. Y.
Brooks, M. S., & Sons, Inc., Chester, Conn.
Brown, Arthur S., Mfg. Co., Tilton, N. H.
Brown, D. P., & Co., 259-261 North Lawrence St., Philadelphia, Pa.
Brown Engineering Co., 123 N. 3rd St., Reading, Pa.
Brown Instrument Co., The, Wayne & Roberts Aves., Philadelphia, Pa.
Brown, R. H., & Co., 170 Wood St., New Haven, Conn.
Brown & Sharpe Mfg. Co., Promenade St., Providence, R. I.
Brownie Manufacturing Co., Inc., 2921-2923 Pennsylvania St., Fort Wayne, Ind.
Brunner Manufacturing Co., Broad & Gilbert Sts., Utica, N. Y.
Brunswick-Kroeschell Co., New Brunswick, N. J.
Buchanan, C. G., Chemical Co., 4640 Baker Ave., Norwood, Cincinnati, Ohio.
Buckeye Brass & Mfg. Co., The, 6410 Hawthorne Ave., Cleveland, Ohio.
Buckeye Portable Tool Co., The, 29 W. Apple St., Dayton, Ohio.
Beugeleisen, Harry, 257 Fulton St., Brooklyn, N. Y.
Buffalo Batt & Felt Corp., Ellicott Rd., Depew, N. Y.
Buffalo Belting Works, 18 Ellicott St., Buffalo, N. Y.
Buffalo Bolt Co., North Tonawanda, N. Y.
Buffalo Forge Co., 490 Broadway, Buffalo, N. Y.
Buffalo Foundry & Machine Co., 1543 Fillmore Ave., Buffalo, N. Y.
Buffalo Meter Co., 2919 Main St., Buffalo, N. Y.
Buffalo Nipple & Machine Co., Inc., 335 Glenwood Ave., Buffalo, N. Y.
Buffalo Wire Works Co., Inc., 589 Terrace, Buffalo, N. Y.
Bunting Brass & Bronze Co., 715 Spencer St., Toledo, Ohio.
Burgess Battery Co., Freeport, Ill.
Burke Machine Tool Co., The, Conneaut, O.
Burnley Battery Mfg. Co., Clay St., North East, Pa.
Burr, John T., & Son, 429 Kent Ave., Brooklyn, N. Y.
Burrell Belting Co., 413 S. Hermitage Ave., Chicago, Ill.
Burrows, F. A., Mfg. Co., 1638 York St., York, Pa.
Burt Manufacturing Co., The, 44½ South St., Akron, Ohio.
Business Men's Paper Press Co., Wayland, Mich.
Bussmann Mfg. Co., University at Jefferson, St. Louis, Mo.
Butterfield & Co., Division, Union Twist Drill Co., Derby Line, Vt.
Byers, A. M., Co., Clark Bldg., Pittsburgh.

C

C-O-Two Fire Equipment Co., 560 Belmont Ave., Newark, N. J.
Cactus Mat & Patch Mfg. Co., 453 Commercial St., Los Angeles, Calif.
Calder, Geo. H., Co., 628 N. Prince St., Lancaster, Pa.
California Screw Co., 74 Clementina St., San Francisco, Calif.
California Tanning Co., 1905-9 Shenandoah Ave., St. Louis, Mo.
Campbell, Andrew C., Inc., Division of American Chain Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
Campbell-Hausfeld Co., The, Harrison, O.
Cambridge Wire Cloth Co., 1313 Washington St., Cambridge, Md.
Canedy-Otto Mfg. Co., Main St. & East End Ave., Chicago Heights, Ill.
Canfield, M. C., Sons Co., 93 Wilsey St., Newark, N. J.
Cannon Oiler Co., Keithsburg, Ill.
Canton Foundry & Machine Co., The, Dime Savings Bank Bldg., Canton, Ohio.
Capen Belting & Rubber Co., 1920 Washington Ave., St. Louis, Mo.
Capitol Brass Division, Bohn Aluminum & Brass Corp., 2306 Franklin St., Detrtoit, Mich.
Carborundum Co., Niagara Falls, N. Y.
Card, S. W., Mfg. Co., Division of Union Twist Drill Co., Rumford Ave., Mansfield, Mass.
Cardwell Machine Co., The, 1901 E. Franklin St., Richmond, Va.
Carey, Philip, Co., The, Lockland, Cincinnati, Ohio.
Carolus Manufacturing Co., P. O. Box 417, Sterling, Ill.
Carpenter, J. M., Tap & Die Co., 2108 W. Fort St., Detroit, Mich.
Carter Paint Co., Liberty, Ind.
Case, J. R., Mfg. Co., Inc., 207 Bridge St., Jonesboro, Ark.
Cash, A. W., Valve Mfg. Co., 600-616 N. Water St., Decatur, Ill.
Central Automatic Sprinkler Co., 247 E. Ashmead St., Philadelphia, Pa.
Central Forging Co., The, Mill St., Catawissa, Pa.
Central Rubber & Supply Co., 120 S. Meridian, Indianapolis, Ind.
Central Steel and Wire Co., 4545 S. Western Blvd., Chicago, Illl.
Central Tube Co., First National Bank Bldg., Pittsburgh, Pa.
Central Valve Mfg. Co., 231 E. 95th St., Chicago, Ill.
Century Electric Co., 1806 Pine St., St. Louis, Mo.
Chadwick & Trefethen, 32 Bow St., Portsmouth, N. H.
Chain Belt Co., 1622 W. Bruce St., Milwaukee, Wis.
Chain Products Co., The, 3924 Cooper Ave., Cleveland, Ohio.
Champion Blower & Forge Co., Charlotte St. & Harrisburg Pike, Lancaster, Pa.
Champion Manufacturing Co., 7332-48 Kimbark Ave., Chicago, Ill.
Champion Pneumatic Machinery Co., 8164 S. Chicago Ave., Chicago, Ill.
Champion Rivet Co., Harvard & E. 108th Sts., Cleveland, Ohio.
Chandler Products Corp., 1491 Chardon Rd., Cleveland, Ohio.

Channon, J. H., Corp., 1447 W. Austin Ave., Chicago, Ill.
Chapin, R. E., Mfg. Works, The, 29 Liberty St., Batavia, N. Y.
Chapin, W. R., Co., The, P. O. Box 632, Indianapolis, Ind.
Chapman Bearing & Engineering Co., 1050 Military Rd., Buffalo, N. Y.
Chase Foundry & Mfg. Co., The, 2715 Parsons Ave., Columbus, Ohio.
Chattanooga Machinery Co., Bennett Ave. & Watkins Sts., Chattanooga, Tenn.
Chattanooga Saw Works, 1512 William St., Chattanooga, Tenn.
Chattanooga Wheelbarrow Co., 1311 E. Main St., Chattanooga, Tenn.
Chesapeake Belting Co., 834 Harford Ave., Baltimore, Md.
Chesterton, A. W., Co., 64 India St., Boston, Mass.
Chicago Belting Co., 113-125 N. Green St., Chicago, Ill.
Chicago Die Casting Mfg. Co., 2512 W. Monroe St., Chicago, Ill.
Chicago Expansion Bolt Co., 126 S. Clinton St., Chicago, Ill.
Chicago Eye Shield Co., 2306 Warren Ave., Chicago, Ill.
Chicago Nipple Mfg. Co., 1966 Southport Ave., Chicago, Ill.
Chicago Pipethread Machine Co., Racine, Wis.
Chicago Pneumatic Tool Co., 6 E. 44th St., New York, N. Y.
Chicago Pulley & Shafting Co., 17-23 N. Desplaines St., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, 1267-1301 Elston Ave., Chicago, Ill.
Chicago Screw Co., The, 1026 S. Homan Ave., Chicago, Ill.
Chicago Tool & Engineering Co., 8389 S. Chicago Ave., Chicago, Ill.
Chicago Tubing & Braiding Co., 1315 S. Third Ave., Maywood, Ill.
Chicago Watchman's Clock Co., 1526 S. Wabash Ave., Chicago, Ill.
Chicago Wheel & Mfg. Co., 1101 W. Monroe St., Chicago, Ill.
Chisholm-Moore Hoist Corp., Fremont Ave., Tonawanda, N. Y.
Cincinnati Electrical Tool Co., The, Madison & Edwards Roads, Cincinnati, Ohio.
Cincinnati Lathe & Tool Co., The, 3207 Disney St., Oakley, Cincinnati, Ohio.
Cincinnati Rubber Mfg. Co., The, Franklin Ave. & B. & O. R. R., Norwood, Cincinnati, Ohio.
Cincinnati Specialty Mfg. Co., Inc., 1907 Powers St., Cincinnati, Ohio.
Cincinnati Tool Co., The, Montgomery Ave., Cincinnati, Ohio.
Clamps, Inc., 341 39th St., Brooklyn, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Clark, James, Jr., Electric Co., 600 E. Bergman St., Louisville, Ky.
Clark Manufacturing Co., The, 110 Turner St., Philadelphia, Pa.
Clayton & Lambert Mfg. Co., 1111 French Rd., Detroit, Mich.
Clements Mfg. Co., 6650 S. Narragansett Ave., Chicago, Ill.
Clemson Bros., Inc., Middletown, N. Y.
Cleveland Blow Pipe & Mfg. Co., The, 6505 Cedar Ave., Cleveland, Ohio.
Cleveland Cap Screw Co., 2921-23 E. 79th St., Cleveland, Ohio.
Cleveland Chain & Mfg. Co., The, P. O. Sta. D.—Stop 3, ABC, Cleveland, Ohio.
Cleveland Container Co., The, 10630 Berea Rd., Cleveland, Ohio.
Cleveland File Co., The, 3400 Hamilton Ave., Cleveland, Ohio.
Cleveland Graphite Bronze Co., The, 880 East 72nd St., Cleveland, Ohio.
Cleveland Rock Drill Co., The, 3734 E. 78th St., Cleveland, Ohio.
Cleveland Twist Drill Co., The, 1242-1264 E. 49th St., Cleveland, Ohio.
Cleveland Union Engineering Co., The, Cuyahoga & West 4th Sts., Cleveland, O.
Cleveland Wrought Products Co. (Division of United Screw & Bolt Corp.), 3300 W. 58th St., Cleveland, Ohio.
Cling-Surface Co., 1032-1048 Niagara St., Buffalo, N. Y.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Clizbe Bros. Mfg. Co., Harrison & Place Sts., Plymouth, Ind.
Clopp, Geo. B., Iron Works, 3717 Filbert St., Philadelphia, Pa.
Clover Mfg. Co., 327 Main St., Norwalk, Conn.
Clow, James B., & Sons, 201-299 N. Talman Ave., Chicago, Ill.
Coffing Hoist Co., 309 E. Van Buren St., Danville, Ill.
Colebrook's, W. H., Sons, Inc., 1419 S. McBride St., Syracuse, N. Y.
Coleman, Allan J., 120 W. Illinois St., Chicago, Ill.
Colladay Machine Works, 124 W. Venango St., Philadelphia, Pa.
Collins Co., The, Collinsville, Conn.
Collmer Bros., 114 Lincoln Way E, South Bend, Ind.
Colmonoy, Inc., P. O. Box 977, Los Nietos, Calif.
Colorado Sanitary Wiping Cloth Co., 2637-41 W. 13th Ave., Denver, Colo.
Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Colton, Arthur, Co., 2600 E. Jefferson Ave., Detroit, Mich.
Columbian Rope Co., Genesee St., Auburn, N. Y.
Columbian Vise & Mfg. Co., The, 9021 Bessemer Ave., Cleveland, Ohio.
Columbus Anvil & Forging Co., The, 123 W. Frankfort St., Columbus, Ohio.
Columbus McKinnon Chain Corp., Fremont & Fillmore Sts., Tonawanda, N. Y.
Commercial Chemical Co., 235 Medford St., Boston, Mass.
Commercial Diamond Co., 354 E. Congress St., Detroit, Mich.
Commonwealth Brass Corp., 5781-5835 Commonwealth Ave., Detroit, Mich.
Compton, W. H., Shear Co., The, 314-320 Camden St., Newark, N. J.
Conant & Donelson Co., Conway, Mass.
Conco Engineering Works, Mendota, Ill.
Concrete Surfacing Machinery Co., The, 4667-69 Spring Grove Ave., Cincinnati, O.
Congress Tool & Die Co., 8214 Collins Ave., Detroit, Mich.
Connor, Miles A., 100 High St., Lockport, N. Y.
Connors, Wm., Paint Mfg. Co., The, 669-685 River St., Troy, N. Y.
Consolidated Ashcroft Hancock Co., Bridgeport, Conn.
Consolidated Brass Co., 139 Summit St., Detroit, Mich.
Consolidated Instrument Co. of America, Inc., 4 N. Central Ave., Baltimore, Md.
Consolidated Iron-Steel Mfg. Co., 1290 East 53rd St., Cleveland, Ohio.
Consolidated Metals Corp., 5531-5535 Woodward Ave., Detroit, Mich.
Construction Machinery Co., Waterloo, Ia.
Continental-Diamond Fibre Co., Newark, Del.
Continental Wood Screw Co., Mt. Pleasant & Hathaway Rd., New Bedford, Mass.
Conway Clutch Co., The, 1543 Queen City Ave., Cincinnati, Ohio.
Cook, C. Lee, Manufacturing Co., Inc., 918 S. Eighth St., Louisville, Ky.
Cook, H. N., Belting Co., 401 Howard St., San Francisco, Calif.
Cook & Riley, Inc., 1300 N. Halsted St., Chicago, Ill.
Cook's, Adam, Sons, Inc., Stiles St. & Elizabeth Ave., Linden, N. J.
Coppus Engineering Corp., 344 Park Ave., Worcester, Mass.
Corbin Screw Corp., The, New Britain, Conn.
Cordley & Hayes, 139-149 Hudson St., New York, N. Y.
Corley Co., The, 629 Grove St., Jersey City, N. J.
Corning Glass Works, P. O. Box 544, Corning, N. Y.
Corr, Patrick, & Sons, Inc., Trenton Ave. and Oakdale St., Philadelphia, Pa.
Corland Welding Compound Co., 12-16 Crawford St., Cortland, N. Y.
Cory, Chas., & Sons, Inc., 68-76 King St., New York, N. Y.
Couse & Bolten, Inc., 42-46 Lafayette St., Newark, N. J.
Covel-Hanchett Co., Big Rapids, Mich.
Cowles Tool Co., 2086 W. 110th St., Cleveland, Ohio.
Craley, C. C., Mfg. Co., P. O. Box 192, Shillington, Pa.
Crandall Packing Co., Maple Ave., Palmyra, N. Y.
Crane Co., 836 S. Michigan Ave., Chicago.
Crane Packing Co., 1800 Cuyler Ave., Chicago, Ill.
Creamer Glass Works, 317 E. Main St., Millville, N. J.
Crescent Belt Fastener Co., 247 Park Ave., New York, N. Y.
Crescent Tool Co., 200 Harrison St., Jamestown, N. Y.
Crescent Truck Co., Lebanon, Pa.
Crowell, D. J., & Crowell, F. G., 61 Terrace, Buffalo, N. Y.
Crown Spray Gun Mfg. Co., 1216-1218 Venice Blvd., Los Angeles, Calif.
Cullman Wheel Co., 1344 Altgeld, Chicago.
Cuneo Catalog Service Co., The, 22nd, Canal & Grove Sts., Chicago, Ill.
Curtin-Hebert Co., Inc., 9 Forest St., Gloversville, N. Y.
Curtis & Curtis Co., 328 Garden St., Bridgeport, Conn.
Curtis Lighting, Inc., 1123 W. Jackson Blvd., Chicago, Ill.
Curtis Machine Corp., Jamestown, N. Y.
Curtis Pneumatic Machinery Co., 1928 Keinlein Ave., St. Louis, Mo.
Cushman Chuck Co., The, 806 Windsor St., Hartford, Conn.
Cutler-Hammer, Inc., N. 12th St. & W. St. Paul Ave., Milwaukee, Wis.
Cutter Machine Co., 3723 Commonwealth Ave., St. Louis, Mo.
Cyclone Fence Co., Waukegan, Ill.
Cyclone Grate-Bar Co., 822 E. Delavan Ave., Buffalo, N. Y.

D

D. G. C. Trap & Valve Co., Inc., 366 Madison Ave., New York, N. Y.
Dake Engine Co., 632 Monroe St., Grand Haven, Mich.
Dallett Co., The, 165-189 W. Clearfield St., Philadelphia, Pa.
Darcoid Co., Inc., The, 169 Christopher St., New York, N. Y.
Darling Valve & Mfg. Co., Williamsport, Pa.
Darnell Corporation, 3300 East 11th St., Long Beach, Calif.
Dart, E. M., Mfg. Co., 134 Thurbers Ave., Providence, R. I.
Davis Regulator Co., 2541 S. Washtenaw Ave., Chicago, Ill.
Davison Combustion Co., 2939 Smallman St., Pittsburgh, Pa.
Dayton Air Compressor Co., The, 427 Valley St., Dayton, Ohio.
Dayton Bronze Bearing Co The, 303 Keowee St., Dayton, Ohio.
Dayton Rubber Mfg. Co., The, W. Riverview Ave., Dayton, Ohio.
Dayton Safety Ladder Co., 121-123 W. 3rd St., Cincinnati, Ohio.
Dean Brothers Co., 323 W. 10th Et., Indianajolis, Ind.
Dean-Hill Pump Co., 23rd & St. Charles Sts., Anderson, Ind.
DeLaval Steam Turbine Co., Trenton, N. J.
DeLoach Mill Mfg. Co., Fort & Main Sts., Chattanooga, Tenn.
Delta File Works, 4837 James St., Philadelphia, Pa.
Delta Mfg. Co., 3775 N. Holton St., Milwaukee, Wis.
Deming Co., The, Salem, Ohio.
Deshler Broom Factory, The, Deshler, Neb.
Desmond-Stephan Mfg. Co., 317 S. Walnut St., Urbana, Ohio.
Detex Watchclock Corp., 4147 E. Ravenswood Ave., Chicago, Ill.
Detroit Belt Lacer Co., 3951 A St., Detroit, Mich.
Detroit Edge Tool Co., 433 Mt. Elliott Ave., Detroit, Mich.
Detroit Graphite Co., Detroit, Mich.
Detroit Hoist & Machine Co., 8203 Morrow St., Detroit, Mich.
Detroit Lubricator Co., 5842 Trumbull Ave., Detroit, Mich.
Detroit Metal Spinning Co., Inc., 625 Monroe Ave., Detroit, Mich.
Detroit Nut Co., Inc., 2456 Hubbard Ave., Detroit, Mich.
Detroit Oak Belting Co., 3362 Wight St., Detroit, Mich.
Detroit Stamping Co., 3445-61 W. Fort St., Detroit, Mich.
Detroit Torch & Manufacturing Co., 12057 Cardoni Ave., Detroit, Mich.
DeVilbiss Co., The, 300 Phillips Ave., Toledo, Ohio.
Devlin, Thos., Mfg. Co., Burlington, N. J.
Diamant Tool & Mfg. Co., Inc., 401 Mulberry St., Newark, N. J.
Diamond Chain and Mfg. Co., 403 Kentucky Ave., Indianapolis, Ind.
Diamond Iron Works, Inc., 1728 N. 2nd St., Minneapolis, Minn.
Diamond Mechanical Goods Division of The B. F. Goodrich Co., 444 S. Main St., Akron, Ohio.
Diamond Saw and Stamping Works, 347 Davey St., Buffalo, N. Y.
Dick, R. & J., Co., Inc., Passaic, N. J.
Diehl Mfg Co., Elizabethport, N. J.
Diener, Geo. W., Mfg. Co., 400-420 Monticello Ave., Chicago, Ill.
Dietz, R. E., Co., 60 Laight St., New York.
Dietzgen, Eugene Co., 2425 Sheffield Ave., Chicago, Ill.
Disston, Henry, & Sons, Inc., Tacony, Philadelphia, Pa.
Divine Brothers Co., 102 Whitesboro St., Utica, N. Y.
Dixie Logging Tool Co., Greenwood & E. 13th St., Chattanooga, Tenn.
Dixon, Joseph, Crucible Co., Wayne & Monmouth Sts., Jersey City, N. J.
Dixon Valve & Coupling Co., Hancock St. & Columbia Ave., Philadelphia, Pa.
Dobbins Core Drill Co., Inc., 5-43 48th Ave., Long Island City, N. Y.
Dockson, C. H., Co., 40 W. Milwaukee Ave., Detroit, Mich.
Dodge Manufacturing Corp., 501 So. Union St., Mishawaka, Ind.
Donnelley, R. R., & Sons Co., 350 E. 22nd St., Chicago, Ill.
Doolittle, L. G., 1 Sturges St., Binghamton, N. Y.
Dover Stamping & Mfg. Co., 385 Putnam Ave., Cambridge, Mass.
Downs, I. G., 620 Exchange Bldg., Denver, Colo.
Drew, C., & Co., Kingston, Mass.
Driscoll Drive Corp., 258 Broadway, New York, N. Y.
Dudgeon, Richard, Inc., 24-26 Columbia St., New York, N. Y.
Duff-Norton Mfg. Co., The, 2709 Preble Ave., Pittsburgh, Pa.
Dumore Co., The, Racine, Wis.
Dunton, M. W., Co., The, 670 Eddy St., Providence, R. I.

UMI

Du Pont De Nemours, E. I., & Co., Du Pont Bldg., Wilmington, Del. (Finishes Div.)
Durabilt Steel Locker Co., 541 Arnold Ave., Aurora, Ill.
Durant Mfg. Co., 1925-1929 N. Buffum St., Milwaukee, Wis.
Duryea Manufacturing Co., 39 Avenue C, Bayonne, N. J.

E

Eagle Belting Co., 108 N. Jefferson St., Chicago, Ill.
Eagle Counter & Leather Co., The, Freeman & Hubert Ave., Cincinnati, Ohio.
Eagle Lock Co., 26 Warren St., New York.
Eagle Manufacturing Co., Wellsburgh, W. Va.
Eagle-Picher Lead Co., The, 134 N. LaSalle St., Chicago, Ill.
Eagle Saw Co., Rossville Blvd., Chattanooga, Tenn.
Earle Gear & Machine Co., The, 4707-15 Stenton Ave., Philadelphia, Pa.
Eaton Manufacturing Co., (Reliance Spring Washer Division), Massillon, Ohio.
Eberhard Mfg. Co., 2734 Tennyson Rd., Cleveland, Ohio.
Economy Baler Co., Ann Arbor, Mich.
Economy Electric Lantern Co., Inc., 325 W. Huron St., Chicago, Ill.
Economy Machine Products Co., 5214 Lawrence Ave., Chicago, Ill.
Economy Manufacturing Co., 5350 Germantown Ave., Philadelphia, Pa.
Economy Pumping Machinery Co., 3431 W. 48th Place, Chicago, Ill.
Edelblute Manufacturing Co., Reynoldsville, Pa.
Edgemont Machine Co., The, Dayton, O.
Edna Brass Mfg. Co., The, 533 Reading Rd., Cincinnati, Ohio.
Edward Valve & Mfg. Co., The, 1200 W. 145th St., East Chicago, Ind.
Edwards, H. D., & Co., 175 E. Larned St., Detroit, Mich.
Edwards Manufacturing Co., The, 517-547 Eggleston Ave., Cincinnati, Ohio.
Efficiency Engineering Co., 17 Montrose St., Boston, 19, Mass.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eiermann Floor Scraper Co., The, 1971 Fulton St., Brooklyn, N. Y.
Elco Tool & Screw Corp., 1808 Broadway, Rockford, Ill.
Elder & Jenks, 411-419 Vine St., Philadelphia, Pa.
Electric Blower Co., 352 Atlantic Ave., Boston, Mass.
Electric Hose & Rubber Co., 12th & Dure Sts., Wilmington, Del.
Electric Soldering Iron Co., Inc., 342 W. 14th St., New York, N. Y.
Electric Sprayit Co., The, 320 E. Colfax Ave., South Bend, Ind.
Electric Torch Mfg. Co., Oakland, Calif.
Electric Wheel Co., Quincy, Ill.
Electro Engineering Co., Inc., 11712 Atlantic Ave., Richmond Hill, New York.
Elkhart Brass Mfg. Co., 1302 W. Beardsley Ave., Elkhart, Ind.
Elkhart Foundry & Machine Co., South Elkhart Ave., Elkhart, Ind.
Elkhart Iron Works, 2000 S. Main St., Elkhart, Ind.
Elkhart Rubber Works, 1714 13th St., Elkhart Ind.
Ellis & Ford Mfg. Co., 38 Piquette Ave., Detroit, Mich.
Elwell-Parker Electric Co., The, 4208 St. Clair Ave., Cleveland, Ohio.
Embury Mfg. Co., Warsaw, N. Y.
Emerson Electric Mfg. Co., The, 2012-32 Washington Ave., St. Louis, Mo.
Emmert Mfg. Co., W. Main St., Waynesboro, Pa.
Empire Brass Mfg. Co., The, 10301-11 Berea Road, Cleveland, Ohio.
Empire Level Manufacturing Co., 717 S. 6th St., Milwaukee, Wis.
Empire Machine Works, Lackawanna Ave., Mt. Morris, N. Y.
Empire Manufacturing Co., Front & Cedar Sts., Quincy, Ill.
Endura Mfg. Corp., 45 N. Fourth St., Quakertown, Pa.
Ensign Products Co., 10703 Quebec Ave., Cleveland, Ohio.
Erie Tool Works, The, 11th & French Sts., Erie, Pa.
Essex Brass Corp., 2000 Franklin St., Detroit, Mich.
Estwing Mfg. Co., Harrison Ave., & 8th St., Rockford, Ill.
Ettco Tool Co., Inc., 594 Johnson Ave., Brooklyn, N. Y.
Euclid-Armington Corp., Euclid, Ohio.
Eureka Packing Co., and Braiding and Packing Works of America, Inc., 250 46th St., Brooklyn, N. Y.
Evansville Leather & Belting Co., 431 Sycamore St., Evansville, Ind.
Evansville Tool Works, Inc., 9th & Maryland St., Evansville, Ind.
Everhot Mfg. Co., 619 S. 10th Ave., Maywood, Ill.
Everitt Co., The, 261 Franklin St., Boston.
Everlasting Valve Co., 49 Fisk St., Jersey City, N. J.
Excel Asbestos Mfg. Co., 403-405 South Ave., Garwood, N. J.
Excelsior Leather Washer Mfg. Co., 720 Chestnut St., Rockford, Ill.
Excelsior Plimptruck Co., The, 796 Atlantic St., Stamford, Conn.
Excelsior Tool & Machine Co., 31st St., & Ridge Ave., East St. Louis, Ill.

F

Fabreeka Belting Co., 20 East St., Boston.
Fafnir Bearing Co., The, New Britain, Conn.
Fairbanks Co., The, 19 East 4th St., New York, N. Y.
Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill.
Fairfield Engineering Co., The, Barnhart St., Marion, Ohio.
Falk Corp., The, Foot of 30th St., Milwaukee, Wis.
Falls Clutch & Machinery Co., The, Cuyahoga Falls, Ohio.
Farrel-Birmingham Co., Inc., 75 Main St., Ansonia, Conn.
Farquahar, A. B., Co., Ltd., 145 North Duke, York, Pa.
Faultless Caster Corp., 1521 N. Garvin St., Evansville, Ind.
Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Federal Electric Co., Inc., 8700 S. State St., Chicago, Ill.
Federal Metallic Packing Co., 29-99 Foundry St., Wakefield, Mass.
Federal Press Co., 511 Division St., Elkhart, Ind.
Federal Products Corp., 1144 Eddy St., Providence, R. I.
Felt Products Co., 1504-14 Carroll Ave., Chicago, Ill.
Fenwick-Reddaway Mfg. Co., 46 Paris St., Newark, N. J.
Ferodo & Asbestos, Inc., New Brunswick, N. J.
Ferry Cap & Set Screw Co., 2151 Scranton Rd., Cleveland, Ohio.
Fibre Specialty Mfg. Co., Division National Vulcanized Fibre Co., Kennett Square, Pa.
Field, R. B., & Co., 10 Clarence St., Worcester, Mass.
Filer & Stowell Co., The, 219 Becher St., Milwaukee, Wis.
Finn, John, Metal Works, 384 Second St., San Francisco, Calif.
Fisher Governor Co., The, Marshalltown, Iowa.
Fitler, Edwin H., Co., The, 517 Arch St., Philadelphia, Pa.
Fitz Water Wheel Co., P. O. Box 308, Hanover, Pa.
Flannery Bolt Co., 3528 Forbes St., Pittsburgh, Pa.
Flash Chemical Co., 160 2nd St., Cambridge, Mass.
Fletcher-Terry Co., The, Forestville, Conn.
Flexible Shafts, Inc., State & Shear Sts., Binghamton, N. Y.
Flexible Steel Lacing Co., 4607 Lexington St., Chicago, Ill.
Flexitallic Gasket Co., 924 N. 8th St., Camden, N. J.
Foley Mfg. Co., 11-15 Main St., N. E., Minneapolis, Minn.
Foote Bros. Gear & Machine Co., 5301 S. Western Ave., Chicago, Ill.
Foote Gear Works, Inc., 1305 S. Cicero Ave., Chicago, Ill.
Forbes & Myers, 172 Union St., Worcester, Mass.
Ford Chain Block Co., 2111 N. 2nd St., Philadelphia, Pa.
Ford Regulator Valve Co., Inc., 407 Broome St., New York, N. Y.
Ford's Porcelain Works, Lehigh Ave. & Stockton St., Perth Amboy, N. J.
Forest City Bit & Tool Co., 1206 Kishwaukee St., Rockford, Ill.
Forsberg Mfg. Co., The, 125 Seaview Ave., Bridgeport, Conn.
Ft. Wayne Engineering & Mfg. Co., 6th & Harrison St., Ft. Wayne, Ind.
Foster Engineering Co., 109-117 Monroe St., Newark, N. J.
Foster-Johnson Reamer Co., Beardsley Ave., Elkhart, Ind.
Foxboro Co., The, Neponset Ave., Foxboro, Mass.
Fraim, E. T., Lock Co., 237 Park Ave., Lancaster, Pa.
Franklin Cotton Mill Co., The, 1114 Central Parkway, Cincinnati, Ohio.
Franklin Oil & Gas Co., The, Bedford, O.
Frasse, Peter A., & Co., Inc., 17 Grand St., New York, N. Y.
Frederick Iron & Steel Co., The, E. 7th St., Frederick, Md.
Fredericksen Co., 831 S. Water St., Saginaw, Mich.
Fretz-Moon Tube Co., Inc., East Butler, Pa.
Frick-Reid Supply Corp., 117 Sandusky St., N. S., Pittsburgh, Pa.
Frictionless Metal Co., 1458-60 Collins St., St. Louis, Mo.
Fridy Hoist & Machinery Co., Mountville, Pa.
Friedrich & Dimmock, Millville, N. J.

G

G. D. S. Shearing & Punching Machine Co., Inc., 101 Walker St., New York, N. Y.
G. M. Laboratories, Inc., 1735 Belmont Ave., Chicago, Ill.
Gairing Tool Co., The, 1629-1637 Lafayette Blvd., Detroit, Mich.
Galland-Henning Manufacturing Co., 2753 S. 31st St., Milwaukee, Wis.
Gandy Belting Co., Grand Rapids, Mich.
Garden City Laboratory, Inc., 550 W. Roosevelt Rd., Chicago, Ill.
Gardiner Metal Co., 4820 S. Campbell Ave., Chicago, Ill.
Garlock Packing Co., The, 50 Main St., Palmyra, N. Y.
Garwood Bronze & Iron Works, Garwood, N. J.
Gates Rubber Co., The, 999 S. Broadway, Denver, Colo.
Gears and Forgings, Inc., 3010 Woodhill Rd., Cleveland, Ohio.
Gem Manufacturing Co., 1229-1243 Goebel St., Pittsburgh, Pa.
General Abrasive Co., Inc., 2020 College Ave., Niagara Falls, N. Y.
General Asbestos & Rubber Division of Raybestos - Manhattan, Inc., North Charleston, S. C.
General Brass Co., 100 S. Campbell Ave., Detroit, Mich.
General Electric Co., River Road, Schenectady, N. Y.
General Electric Co., Merchandise Dept., Bridgeport, Conn.
General Fibre Co., Union & Lumber Sts., Chicago, Ill.
General Refractories Co., 106 S. 16th St., Philadelphia, Pa.
General Wheelbarrow Co., The, 3140 E. 65th St., Cleveland, Ohio.
Geometic Tool Co., The, Blake & Valley Sts., New Haven, Conn.
Gerard Mfg. Co., 729 Main St., Dickson City, Pa.
Gerstner, H., & Sons, 101 Cincinnati St., Dayton, Ohio.
Gerts, Lumbard & Co., 2100 Grand Ave., Chicago, Ill.
Geuder, Paeschke & Frey Co., 15th St. & St. Paul Ave., Milwaukee, Wis.
Giant Mfg. Co., Council Bluffs, Iowa.
Gilbert, J. E., Grinder Co., 321 Mineral St., Milwaukee, Wis.
Gilmer, L. H., Co., Keystone & Cottman Sts., Philadelphia, Pa.
Gilson Slide Rule Co., Stuart, Fla.
Gisholt Machine Co., 1305 E. Washington Ave., Madison, Wis.
Gits Bros. Mfg. Co., 1846-1862 S. Kilbourn Ave., Chicago, Ill.
Glenzer, J. C., Co., The, 6463 Epworth Blvd., Detroit, Mich.
Globe Kneadable Metallic Packing Co., Inc. 1767 W. 10th St., Brooklyn, N. Y.
Globe Machine & Stamping Co., The, 1200-1250 W. 76th St., Cleveland, Ohio.
Globe Steel Abrasive Co., The, 1st Ave., Mansfield, Ohio.
Globe Steel Tubes Co., 3839 W. Burnham St., Milwaukee, Wis.
Globe Woven Belting Co., 1400 Clinton St., Buffalo, N. Y.
Godfrey Conveyor Co., Wolf Ave., Elkhart, Ind.
Goetze Gasket & Packing Co., Inc., 5 Allen Ave., New Brunswick, N. J.
Goheen Corp. of New Jersey, Emmett & Goble Sts., Newark, N. J.
Goodall Rubber Co., 8th & Locust Sts., Philadelphia, Pa.
Goodell-Pratt Co., 57 Wells St., Greenfield, Mass.
Goodell, Zina, Corp., 86-92 Lafayette St., Salem, Mass.
Goodrich Grinding Wheel Co., 1500 W. Madison St., Chicago, Ill.
Goodrich, B. F., Co., The, 400 S. Main St., Akron, Ohio.
Goodyear Tire & Rubber Co., Inc., The,. 1144 East Market St., Akron, Ohio.
Gorton Heating Corp., Cranford, N. J.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Grabler Mfg. Co., 6565 Broadway, Cleveland, Ohio.
Grady Mfg. Co., The, 250-62 Ely Ave., Long Island City, N. Y.
Grand Rapids Vapor Kiln, Front St., Grand Rapids, Mich.
Graton & Knight Co., 356 Franklin St., Worcester, Mass.
Gray & Prior Machine Co., The, 614 Windsor St., Hartford, Conn.
Great Lakes Chemical Works, 5440-5450 W. Jefferson Ave., Detroit, Mich.
Great Neck Saw Mfrs., Inc., Great Neck, N. Y.
Green, A. P., Fire Brick Co., Mexico, Mo.
Greene, Tweed & Co., 109 Duane St., New York, N. Y.
Greenfield Tap & Die Corp., Sanderson St., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Grinnell Co., Inc., 260 W. Exchange St., Providence, R. I.
Grobet File Corp. of America, 3 Park Pl., New York, N. Y.

Gross Rubber Co., 146-148 E. State, Sharon, Pa.
Gundlach, T. J., Machine Co., 408 E. Main St., Belleville, Ill.
Gurley, W. & L. E., 514 Fulton St., Troy, N. Y.
Gustafson & Scott Mfg. Co., 1637 Lowell Ave., Chicago, Ill.

H

H. D. B. Corporation, 900 N. Spaulding Ave., Chicago, Ill.
Haddon Bin Label Co., 206 W. Atlantic Ave., Haddon Heights, N. J.
Hamilton Caster & Mfg. Co., The, 1637 Dixie Highway, Hamilton, Ohio.
Hamilton Foundry & Machine Co., The, Hamilton, Ohio.
Handlan-Buck Mfg. Co., 212 N. 3rd St., St. St. Louis, Mo.
Hannifin Mfg. Co., 621 S. Kolmar Ave., Chicago, Ill.
Hanson-Van Winkle-Munning Co., Matawan, N. J.
Harker Mfg. Co., 121-123 W. 3rd St., Cincinnati, Ohio.
Harnischfeger Corp., 4400 W. National Ave., Milwaukee, Wis.
Harper, H. M., Co., 2620 Fletcher St., Chicago, Ill.
Harrington Co., The, 17th & Callowhill Sts., Philadelphia, Pa.
Harrington & King Perforating Co., The, 5655 Fillmore St., Chicago, Ill.
Harris, Arthur, & Co., 212-218 Curtis St., Chicago, Ill.
Harris, A. W., Oil Co., 326 S. Water St., Providence, R. I.
Harris Calorific Co., The, 2828 Washington Ave., Cleveland, Ohio.
Harris & Reed Mfg. Co., 1510 W. 15th St., Chicago, Ill.
Harrisburg Foundry & Machine Co., Inc., 7th & Curtin Sts., Harrisburg, Pa.
Harrisburg Stamping Co., Harrisburg, Pa.
Harrison & Co., 490 Groveland St., Haverhill, Mass.
Hart, R. E., Mfg. Co., Box 610, Battle Creek, Mich.
Hartz, H. V., Co., The, Cuyahoga & Mahoning Aves., Cleveland, Ohio.
Hartzell Propeller Fan Co., Piqua, Ohio.
Haskell, Wm. H., Manufacturing Co., 24 Commerce St., Pawtucket, R. I.
Haskins, R. G., Co., 4636 W. Fulton St., Chicago, Ill.
Hauck Manufacturing Co., 126-134 10th St., Brooklyn, N. Y.
Hauserman, E. F., Co., The, 6800 Grant Ave., Cleveland, Ohio.
Havana Mfg. Co., 112 N. Pear St., Havana, Ill.
Hawes Manufacturing Co., Inc., 113 Hudson St., Jersey City, N. J.
Haydenville Co., The, Haydenville, Mass.
Hayes File Co., 1988 Franklin St., Detroit, Mich.
Hays Manufacturing Co., 12th & Liberty Sts., Erie, Pa.
Hazard Wire Rope Co., 81 E. Ross St., Wilkes-Barre, Pa.
Heinisch, R., Sons Works, 42 S. 6th St., Newark, N. J.
Heinn Co., 326 Florida St., Milwaukee, Wis.
Heintze, James C., & Co., 3738 W. 143rd St., Cleveland, Ohio.
Heiz & Heiz, Inc., 33 34th St., Brooklyn, N. Y.
Hellenberg, J. B., Co., Inc., The, Clark & Jefferson Sts., Coldwater, Mich.
Heller Bros. Co., 865 Mt. Prospect Ave., Newark, N. J.
Heller, W. C., & Co., Montpelier, Ohio.
Hennebohle, Frank, 81st St. & S. Chicago Ave., Chicago, Ill.
Henry & Allen, 2-36 Wadsworth St., Auburn, N. Y.
Hercules Powder Co., Inc., 900 Market St., Wilmington, Del.
Hergi Mfg. Co., The, 250 5th St., Bridgeport, Conn.
Hermance Machine Co., 178 Campbell St., Williamsport, Pa.
Hersey Manufacturing Co., E. and 2nd Sts., South Boston Station, Boston, Mass.
Heston & Anderson, 1072 Grant Ave., Fairfield, Iowa.
Hettrick Mfg. Co., The, Summit and Magnolia Sts., Toledo, Ohio.
Hewitt Rubber Corp., 240 Kensington Ave., Buffalo, N. Y.
Hettrick, W. E., & Son, Inc., 1301 Prouty Ave., Toledo, Ohio.
Hewitt Metals Corp., 5723 12th St., Detroit, Mich.
Hexacon Electric Appliance Corp., 161-163 W. Clay Ave., Roselle Park, N. J.
Highland Electro Chemical Mfg. Co., Connellsville, Pa.
Hill Clutch Machine & Foundry Co., The, 6400 Breakwater Ave., Cleveland, Ohio.
Hilliard Corp., The, 102 W. 4th St., Elmira, N. Y.
Hills McCanna Corp., 2349 Nelson St., Chicago, Ill.
Himmelein & Bailey, Inc., 1300 Walnut St., Camden, N. J.
Hinds & Coon Co., 116-118 Pearl St., Boston, Mass.
Hisey-Wolf Machine Co., Colerain & Marshall Aves., Cincinnati, Ohio.
Hjorth Lathe and Tool Co., 12 Beacon St., Woburn, Mass.
Hobbs, Clinton, E., Co., 203 Chelsea St., Everett Branch, Boston, Mass.
Hoe, R., and Co., Inc., 138th and E. River Sts., Bronx, New York, N. Y.
Hoffeld, R., & Co., 61-69 Carroll St., Buffalo, N. Y.
Hoggson & Pettis Mfg. Co., The, 141 Brewery St., New Haven, Conn.
Holcomb, A. L., 15 Market Ave., N. W., Grand Rapids, Mich.
Holcomb Safety Garment Co., 128 N. Jefferson St., Chicago, Ill.
Hollands Mfg. Co., 342-352 E. 18th St., Erie, Pa.
Hollow Center Packing Co., 6523 Euclid Ave., Cleveland, Ohio.
Holmberg Steam Trap Co., The, 122 E. Lincoln St., Lindsborg, Kansas.
Holo-Krome Screw Corp., Bristol, Conn.
Holyoke Belting Co., 66-68 Winter St., Holyoke, Mass.
Home Rubber Co., Trenton, N. J.
Homestead Valve Mfg. Co., P. O. Box H, Coraopolis, Pa.
Hones, Charles A., Inc., 121 S. Grand Ave., Baldwin, N. Y.
Hoosier Broom Manufacturing Co., 2224 Bethel Ave., Indianapolis, Ind.
Hooven & Allison Co., The, Xenia, Ohio.
Hoppes Water Wheel Co., The, Greenmount & Columbus Aves., Springfield, Ohio.
Horn, A. C., Co., 43-44 Tenth St., Long Island City, N. Y.
Horsburgh & Scott Co., The, 5115 Hamilton Ave., Cleveland, Ohio.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Hubbard & Co., 6301 Butler St., Pittsburgh.
Hubbell, Harvey, Inc., State St. & Bostwick Ave., Bridgeport, Conn.
Huffman Manufacturing Co., The, P. O. Box 1036, Dayton, Ohio.
Huhn Manufacturing Co., 1391 Sedgwick Ave., Bronx, New York, N. Y.
Humphrey, H. W., Unionville, Conn.
Hunt, C. B., & Son, Box 256, Salem, Ohio.
Hunt, Geo. L., Mfg. Co., Inc., 1030 Wisconsin Ave., Boscobel, Wis.
Hunt, H. W., Co., 47 Pleasant St., Reading, Mass.
Hunter Pressed Steel Co., Pierce & Linden Sts., Lansdale, Pa.
Huot Mfg. Co., 128 E. 10th St., St. Paul, Minn.
Huron Industries, Inc., Alpena, Mich.
Husky Corporation, Lake Shore Rd., Kenosha, Wis.
Huyette, Paul B., Co., Inc., 401 N. Broad St., Philadelphia, Pa.
Hyatt Roller Bearing Co., P. O. Box 476, Newark, N. J.
Hydraulic Press Mfg. Co., The, 50 Lincoln Ave., Mount Gilead, Ohio.
Hygeia Respirator Co., 129 East 85th St., New York, N. Y.
Hygrade Sylvania Corp., 60 Boston St., Salem, Mass.
Hy-Tools, Inc., Penfield & Niagara Sts., Buffalo, N. Y.

I

Ideal Commutator Dresser Co., 1006 Park Ave., Sycamore, Ill.
Ideal Face Shield Co., The, 468 N. Garfield Ave., Columbus, Ohio.
Illinois Gear & Machine Co., 2108 N. Natchez Ave., Chicago, Ill.
Illinois Iron & Bolt Co., 10 Main St., Carpentersville, Ill.
Illinois Malleable Iron Co., 1801 Diversey Parkway, Chicago, Ill.
Illinois Testing Laboratories, Inc., 141 W. Austin Ave., Chicago, Ill.
Imperial Belting Co., 1750-1800 S. Kilbourn Ave., Chicago, Ill.
Imperial Brass Manufacturing Co., 512 S. Racine Ave., Chicago, Ill.
Imperial Floor Co., Inc., 59 Halstead St., Rochester, N. Y.
Independent Pneumatic Tool Co., 600 W. Jackson Blvd., Chicago, Ill.
Indianapolis Brush & Broom Mfg. Co., 26-30 Brush St., Indianapolis, Ind.
Industrial Brownhoist Corp., 4403 St. Clair Ave., Cleveland, Ohio.
Industrial Gloves Corp., 700 Garfield Blvd., Danville, Ill.
Ingersoll Milling Machine Co., The, 2420 Douglas St., Rockford, Ill.
Ingersoll-Rand Co., 11 Broadway, New York, N. Y.
Ingersoll Steel & Disc Co., Newcastle, Ind.
Instantaneous Glue Converter Co., 3752 Montgomery Ave., Cincinnati, Ohio.
International Clay Machinery Co., 1057 Bolander Ave., Dayton, Ohio.
International Nickel Co., Inc., The, 67 Wall St., New York, N. Y.
International Nulyp Tool Corp., Oswego, N. Y.
Ireson, Charles L., Co., 20 South St., Philadelphia, Pa.
Irwin Auger Bit Co., Wilmington, Ohio.
Ivins, Ellwood, Steel Tube Works, Inc., Coventry Aves. & Valley Rd., Oak Lane Station, Philadelphia, Pa.
Iwan Brothers, 1503 Prairie Ave., South Bend, Ind.

J

Jackson, Byron Co., 2150 E. Slauson St., Los Angeles, Calif.
Jackson, Isaac, Belt Fastener Co., 18 Vesey St., New York, N. Y.
Jackson Manufacturing Co., Magnolia St. & P. R. R., Harrisburg, Pa.
Jacobs Manufacturing Co., The, 2076 Park St., Hartford, Conn.
Jacobs, E. H., Manufacturing Co., Danielson, Conn.
Jaeger Machine Co., The, 520 Dublin Ave., Columbus, Ohio.
Janos Asbestos Co., 26 Cortlandt St., New York, N. Y.
Jarvis, Chas. L., Co., Gildersleeve, Conn.
Jay Tee Tool Sales Co., 4900 Euclid Ave., Cleveland, Ohio.
Jefferson Electric Co., Bellwood, Ill.
Jefferson Union Co., Lexington, Mass.
Jeffrey Manufacturing Co., The, 930-99 N. Fourth St., Columbus, Ohio.
Jeffrey-Traylor Division of The Jeffrey Manufacturing Co., Columbus, Ohio.
Jenkins Bros., 80 White St., New York.
Jerry Bros. Belting Co., 1908 E. Main St., Richmond, Va.
Jewel Incandescent Lamp Co., 900 Passaic Ave., E. Newark, N. J.
Jewell Belt Hook Co., 63 John St., New Britain, Conn.
Jewett Refrigerator Co., Inc., The, 2 Letchworth St., Buffalo, N. Y.
Jiffy Fire Hose Rack Co., 133 W. 52nd St., New York, N. Y.
Jobbers Mfg. Co., 7 S. Dearborn St., Chicago, Ill.
Johns-Manville Sales Corp., 22 East 40th St., New York, N. Y.
Johnson Belting Co., 34-44 Huber St., New York, N. Y.
Johnson Bronze Co., 500-600 S. Mill St., New Castle, Pa.
Johnson, Carlyle, Machine Co., The, 52 Main St., Manchester, Conn.
Johnson, E. P., Rule Mfg. Co., 565 W. Washington Blvd., Chicago, Ill.
Johnson Mfg. Co., 729 W. Washington Blvd., Chicago, Ill.
Johnston & Chapman Co., 2925 Carroll Ave., Chicago, Ill.
Johnston-Morehouse-Dickey Co., 704 Second Ave., Pittsburgh, Pa.
Jones, H. H., Lancaster, N. H.
Jones & Laughlin Steel Corp., 3rd Ave., & Ross St., Pittsburgh, Pa.
Jones Superior Machine Co., 1264 W. North Ave., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., 4401 W. Roosevelt Rd., Chicago, Ill.
Jordan Brothers, Inc., 74 Beekman St., New York, N. Y.
Joslin, A. D., Mfg. Co., Manistee, Mich.
Joyce-Cridland Co., The, 329 Linden Ave., Dayton, Ohio.
Judson Governor Co., The, 20-38 Brown's Race, Rochester, N. Y.
Justrite Manufacturing Co., 2061 Southport Ave., Chicago, Ill.
Justus Steam Trap Co., Napanoch, N. Y.

K

K-D Manufacturing Co., Lancaster, Pa.
K-G Welding & Cutting Co., Inc., 515 W. 29th St., New York, N. Y.
Kaalot Mfg. Co., The, 3927 N. Kedzie Ave., Chicago, Ill.
Kalamazoo Railway Supply Co., 1827 Reed St., Kalamazoo, Mich.
Kant Slip Mfg. Co., 451 E. 63rd St., Chicago, Ill.
Karelsen, E., Inc., 17 W. 44th St., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Keating, E. F., Co., 452 Water St., New York, N. Y.
Keckley O. C., Co., 565 Washington Blvd., Chicago, Ill.
Keller Glove Mfg. Co., Plumsteadville, Pa.
Kelley, R. A., Co., The, W. Market St., Xenia, Ohio.
Kellogg Manufacturing Co., 97 Humboldt St., Rochester, N. Y.
Kelly Axe & Tool Co., Charleston, W. Va.
Kelly Reamer Co., 3705 W. 73rd St., Cleveland, Ohio.
Kempton Mfg. Corp., The, 148 W. 23rd St., New York, N. Y.
Kendallville Brush & Broom Co., P. O. Box 187, Kendallville, Ind.
Kennedy Manufacturing Co., 200 N. Harrison St., Van Wert, Ohio.
Kennedy Valve Mfg. Co., E. Water St., Elmira, N. Y.
Kerotest Mfg. Co., 2525 Liberty Ave., Pittsburgh, Pa.
Kester Solder Co., 4201 Wrightwood Ave., Chicago, Ill.

Keuffel & Esser Co., Adams & 3rd Sts., Hoboken, N. J.
Key Boiler Equipment Co., Box 494, East St. Louis, Ill.
Keystone Belting Co., 213 N. 3rd St., Philadelphia, Pa.
Keystone Boiler & Foundry Co., Landisville, Pa.
Keystone Brass & Rubber Co., 811 Chestnut St., Philadelphia, Pa.
Keystone Coupling Co., 103 Market St., Pittsburgh, Pa.
Keystone Emery Mills, 4321 Paul St., Philadelphia, Pa.
Keystone-Hindley Gear Co., 20th St. & Indiana Ave., Philadelphia, Pa.
Keystone Lubricating Co., 21st & Clearfield Sts., Philadelphia, Pa.
Keystone Mfg. Co., 41-61 Chandler St., Buffalo, N. Y.
Keystone Reamer & Tool Co., Millersburg, Pa.
Keystone Refractories Co., 120 Liberty St., New York, N. Y.
Kidd Drawn Steel Co., Alliquippa, Pa.
Kidder, J. F., Mfg. Co., Inc., 426 Colchester Ave., Burlington, Vt.
Kieley & Mueller, Inc., 34 W. 13th St., New York, N. Y.
Kilborn & Bishop Co., The, 196 Chapel St., New Haven, Conn.
Kimball, C. M., Co., Chemical Lane, Everett, Mass.
Kimball-Krogh Pump Co., Division of Victor Equipment Co., 1010 E. 62nd St., Los Angeles, Calif.
Kimble Electric Co., 2011 Hastings St., Chicago, Ill.
King Union Co., Inc., Hillsgrove, R. I.
Kinney Manufacturing Co., 3529 Washington St., Boston, 30, Mass.
Klein, M., & Son, 3200 Belmont Ave., Chicago, Ill.
Klein-Logan Co., The, 13th & Breed St., Pittsburgh, Pa.
Kleinman, Russell F., 5317 N. Second St., Philadelphia, Pa.
Klingerit, Inc., 16-22 Hudson St., New York, N. Y.
Klipfel Manufacturing Co., 2641-59 W. Harrison St., Chicago, Ill.
Knight, H. W., & Son, Seneca Falls, N. Y.
Knight & Thomas, Inc., 212 Summer St., Boston, Mass.
Knight, W. B., Machinery Co., 3920 W. Pine Blvd., St. Louis, Mo.
Knox Mfg. Co., 819 Cherry St., Philadelphia, Pa.
Koppers Products Co., Koppers Bldg., Pittsburgh, Pa.
Kova Brush & Broom Mfg. Co., 7th & Anderson Sts., Greensburg, Ind.
Kraeuter & Co., Inc., 585 Eighteenth Ave., Newark, N. J.
Kron Co., The, 1720 Fairfield Ave., Bridgeport, Conn.
Kuhns Bros. Co., 1800 McCall Ave., Dayton, Ohio.
Kulp Electric Co., 20 N. Wacker Dr., Chicago, Ill.
Kupferle, John C., Foundry Co., 2822 N. Main St., St. Louis, Mo.

L

LaFrancis, A., 435 14th Ave., Newark, N. J.
Laminated Shim Co., Inc., 2124 44th Ave., Long Island City, N. Y.
Lamson & Sessions Co., The, 1971 W. 85th St., Cleveland, Ohio.
Lane Mfg. Co., Montpelier, Vt.
Lanebro Manufacturing Co., Inc., 110 Main St., Poughkeepsie, N. Y.
Lansing Co., Lansing, Mich.
La Porte Machine & Tool Co., 1304 Lake St., La Porte, Ind.
La Salle Steel Co., Palm Olive Bldg., Chicago, Ill.
Latrobe Tool Co., Drawer "D," Latrobe, Pa.
Latta, J. S., Packing & Rubber Co., 3246 Ludlow St., Philadelphia, Pa.
Laughlin, Thomas, Co., The, 143 Fore St., Portland, Maine.
Lavino, E. J., & Co., Bullitt Bldg., Philadelphia, Pa.
Lay, Joseph, Co., The, Wayne Ave. & Nickel Plate R. R., Portland, Ind.
Layth-Grinder Corp., 28 Canfield St., Orange, N. J.
Leach Co., Oshkosh, Wis.
Leard, William, Co., Inc., The, 16th St. & 5th Ave., New Brighton, Pa.
Le Blond, R. K., Machine Tool Co., Madison & Edwards Rds., Cincinnati, Ohio.
Leeds & Northrup Co., 4901 Stenton Ave., Philadelphia, Pa.
Leetonia Tool Co., The, 160 Front St., Leetonia, Ohio.
Leiman Bros., Inc., 156 Christie St., Newark, N. J.
Lenk Mfg. Co., The, Newton Lower Falls, Mass.
Leonard Machine Works, 404 Baltimore Ave., Lansdowne, Pa.
Leschen, A., & Sons Rope Co., 5909 Kennerly Ave., St. Louis, Mo.
Leslie Co., Lyndhurst, N. J.
Lewellen Manufacturing Co., Columbus, Ind.
Lewis Bolt & Nut Co., 504 Malcolm Ave., S. E., Minneapolis, Minn.
Lewis, G. B., Co., 426 Montgomery St., Watertown, Wis.
Lewis-Shepard Co., 125 Walnut St., Watertown Station, Boston, Mass.
Lewis Steam Specialty & Valve Co., 247 E. Ashmead St., Philadelphia, Pa.
Libbey Glass Mfg. Co., Toledo, Ohio.
Lidseen, Gustave, Inc., 832 S. Central Ave., Chicago, Ill.
Liggnum-Vitæ Wood Turning Co., 96-100 Boyd Ave., Jersey City, N. J.
Lillie, Dexter P., Co., P. O. Box 278, New Bedford, Mass.
Lincoln Electric Co., The, 12818 Coit Road, Cleveland, Ohio.
Linde Air Products Co., The, 30 E. 42nd St., New York, N. Y.
Linear Packing & Rubber Co., Inc., State Rd. & Levick St., Philadelphia, Pa.
Link-Belt Co., 300 W. Pershing Rd., Chicago, Ill.
Link, O. P., Handle Co., Salem, Ind.
Lippert, E. T., Saw Co., 608 Lincoln Ave., Millvale Branch, Pittsburgh, Pa.
Liquilox Co., Ltd., 5501 Slauson Ave., Los Angeles, Calif.
List, E. J., Mfg. Co., Havana, Ill.
Littleford Bros., 451 E. Pearl St., Cincinnati, Ohio.
Loane Engineering Co., 208 S. Hanover St., Baltimore, Md.
Lockport Fittings Co., Inc., Lockport, N. Y.
Lodge & Shipley Machine Tool Co., The, 3055 Colerain Ave., Cincinnati, Ohio.
Lonergan, J. E., Co., 211-213-215 Race St., Philadelphia, Pa.
Loomis Machine Co., Tiffin, Ohio.
Loomis-Manning Filter Distributing Co., 1421-1465 S. 37th St., Philadelphia, Pa.
Louisville Electric Manufacturing Co., 31st & Magazine Sts., Louisville, Ky.
Louisville Sanitary Wipers Co., Inc., 759-65 S. Preston St., Louisville, Ky.
Lourie Manufacturing Co., 565 Washington Blvd., Chicago, Ill.
Lovejoy Tool Co., Inc., 133 Main St., Springfield, Vt.
Lovejoy Tool Works, 5009 W. Lake St., Chicago, Ill.
Lowell Wrench Co., 54 Commercial St., Worcester, Mass.
Lubriplate Corp., 20 Exchange Pl., New York, N. Y.
Lubron Co., The, Tileston & Kelvin Sts., Everett, Mass.
Ludlow-Saylor Wire Co., Newstead Ave., & Wabash R. R., St. Louis, Mo.
Ludlum Steel Co., Watervliet, N. Y.
Lufkin Rule Co., The, 1800 Hess Ave., Saginaw, Mich.
Luitwieler Pumping Engine Co., 123 Ames St., Rochester, N. Y.
Luma Electric Equipment Co., P. O. Box 132, Toledo, Ohio.
Lunkenheimer Co., The, Beekman & Waverly Ave., Cincinnati, Ohio.
Lupton's, David, Sons Co., Allegheny Ave. & Tulip St., Philadelphia, Pa.
Luther Grinder & Tool Co., 131 W. Seeboth St., Milwaukee, Wis.
Lyon, Conklin & Co., Inc., Race & McComas Sts., Baltimore, Md.
Lyon Metal Products, Inc., Aurora, Ill.

M

M. C. Tool Co., 1103 W. Monroe St., Chicago, Ill.
M & H. Valve & Fittings Co., Anniston, Ala.
M-R-C Bearings Co., 402 Chandler St., Jamestown, N. Y.
McAuley Automatic Trap Co., 45 Imperial Power Bldg., Pittsburgh, Pa.
McCauley Belting Co., 412 Orleans St., Chicago, Ill.
McCord Radiator & Mfg. Co., 2587 E. Grand Blvd., Detroit, Mich.
McCullough Manufacturing Co., 2632-2634 Central Ave., Minneapolis, Minn.
McDonald, A. Y., Mfg. Co., 12th & Pine Sts., Dubuque, Iowa.
McDonnell & Miller, 400 N. Michigan Ave., Chicago, Ill.
McElmoyl, W. J., & Co., Inc., Groveville, N. J.
McGill Manufacturing Co., 259 Indiana Ave., Valparaiso, Ind.
McGowan, John H., Co., The, 58 Central Ave., Cincinnati, Ohio.
McIlroy Belting Works, Hammond, Ind.
McKay Co., The (Formerly United States Chain & Forging Co.), 1005 Liberty Ave., Pittsburgh, Pa.
McKinney-Harrington Conveyor Co., 179 W. 22nd St., North Chicago, Ill.
McLanathan, F. W., & Son, Canal St., Lawrence, Mass.
McLean Manufacturing Corp., 103-105 Sixth Ave., New York, N. Y.
McLeod & Henry Co., 357 1st St., Troy, N. Y.
McLeod Leather & Belting Co., 300-302 N. Forbis St., Greensboro, N. C.
McMillan's, W. H., Sons, 49 South St., New York, N. Y.
McNeill, T. W., Engineering Equipment Co., Chicago, Ill.
Mabbs Hydraulic Packing Co., 431 S. Dearborn St., Chicago, Ill.
Macbeth-Evans Glass Co., Charleroi, Pa.
Machine Shop Equipment Co., 3rd St., Grove City, Pa.
Macleod Co., The, 2236 Bogen St., Cincinnati, Ohio.
MacWatty Belting Co., 7 Beverly St., Providence, R. I.
Macwhyte Co., 2922 14th Ave., Kenosha, Wis.
Madesco Tackle Block Co., P. O. Box 236, Easton, Pa.
Madison-Kipp Corp., 201 Waubesa St., Madison, Wis.
Madison Manufacturing Co., Spring St. & Bauer Ave., Muskegon, Mich.
Magic Leather Treatment Co., 12209 Turner Ave., Detroit, Mich.
Magie Bros., 3634 W. Pershing Rd., Chicago, Ill.
Magnetic Manufacturing Co., 635 S. 28th St., Milwaukee, Wis.
Magnolia Metal Co., 120 Bayway, Elizabeth, N. J.
Main Belting Co., 1241 Carpenter St., Philadelphia, Pa.
Mall Tool Co., 7740 S. Chicago Ave., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Manhattan Rubber Mfg. Div., The, of Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
Manheim Mfg. & Belting Co., Manheim, Pa.
Manistee Iron Works Co., Manistee, Mich.
Manley Products Corp., York, Pa.
Mann Edge Tool Co., Lewistown, Pa.
Manning, Maxwell & Moore, Inc., 100 E. 42nd St., New York, N. Y.
Manufacturers' Belt Hook Co., 1315-21 W. Congress St., Chicago, Ill.
Manufacturers Brush Co., The, 12501 Elmwood Ave., Cleveland, Ohio.
Manufacturers Equipment Co., The, Michigan Ave., Dayton, Ohio.
Manufacturing Equipment & Engineering Co., Marble St., Framingham, Mass.
Manzel Brothers Co., 315 Babcock St., Buffalo, N. Y.
Marathon Electric Mfg. Co., Wausau, Wis.
Marchant, Geo. F., Co., 1420 S. Rockwell St., Chicago, Ill.
Marcy Tool Works, Inc., Putnam, Conn.
Marietta Valve Cup Co., The, 178 Post St., Marietta, Ohio.
Marion Machine Foundry & Supply Co., Box 685, Marion, Ind.
Marion Malleable Iron Works, Box 689, Marion, Ind.
Marion Steam Shovel Co., The, Marion, O.
Maris Brothers, Inc., 56th St. & Grays Ave., Philadelphia, Pa.
Market Forge Co., Garvey St., Everett, Mass.
Markwell Manufacturing Co., Inc., 200 Hudson St., New York, N. Y.
Markwell Products Co. (Successors to Partridge-Scotford Stamp & Stencil Co.), 205 E. 22nd St., Kansas City, Mo.
Mars Co., The, 215-217 S. River St., Aurora, Ill.
Marsh, Chas. W., Co., Hudson & Michigan Sts., Muskegon, Mich.
Marsh, Jas. P., & Co., 2073 Southport Ave., Chicago, Ill.
Marsh Valve Co., 4th St. & Brigham Rd., Dunkirk, N. Y.
Marshall Metal Co., 407 E. Pico St., Los Angeles, Calif.
Marshalltown Trowel Co., Marshalltown, Iowa.
Martell Packings Co., The, 333 E. Bridge St., Elyria, Ohio.
Martin, H. P., & Sons, 801 W. 12th St., Owensboro, Ky.
Martin Machine Co., Inc., off 1st St., Turners Falls, Mass.
Mason Brush Works, 38 Austin St., Worcester, Mass.
Mason Regulator Co., 1190 Adams St., Boston, Mass.
Mason, Volney W., & Co., 263 Summer St., Boston, Mass.
Massachusetts Machine Shop, Inc., 817 Albany St., Boston, Mass.
Massasoit Mfg. Co., 136 Pocasset St., Fall River, Mass.
Massey Machine Co., Pearl St., Watertown, N. Y.
Mast, Foos & Co., 34 N. Isabella St., Springfield, Ohio.
Master-Craft Corp., 825 Cobb Ave., Kalamazoo, Mich.
Master Electric Co., The, 100 Davis Ave., Dayton, Ohio.
Master Lubricants Co., Meadow & Jackson Sts., Philadelphia, Pa.
Master Products Co., The, 6410 Park Ave., S. E., Cleveland, Ohio.
Master Rule Mfg. Co., Inc., 815 E. 136th St., New York, N. Y.
Master Woodworker Mfg. Co., 612 Brush St., Detroit, Mich.
Matchless Metal Polish Co., 840 W. 49th St., Chicago, Ill.

Mathews Conveyor Co., Ellwood City, Pa.
Mattatuck Mfg. Co., The, 1900 E. Main St., Waterbury, Conn.
Matthews, Jas. H., & Co., 3942 Forbes St., Pittsburgh, Pa.
Mattison Machine Works, Rockford, Ill.
Maydole, David, Tool Corp., Norwich, N. Y.
Maurey Manufacturing Corp., 2915 S. Wabash Ave., Chicago, Ill.
Mayhew Steel Products, Inc., Shelburne Falls, Mass.
Mechanical Devices Co., Bell St., Bloomington, Ill.
Mechanical Leather Specialties Mfg. Co., 297 Congress St., Boston, Mass.
Mechanical Rubber Co., The, 1 Market St., Passaic, N. J.
Mechanics Tool & Wrench Co., Greenfield, Mass.
Medart Co., The, 3500 DeKalb St., St. Louis.
Medart, Fred, Mfg. Co., Potomac & DeKalb Sts., St. Louis, Mo.
Medina Iron & Brass Co., 528 East Ave., Medina, N. Y.
Medusa Portland Cement Co., 1002 Engineers Bldg., Cleveland, Ohio.
Meier Electric and Machine Co., 3525 E. Washington St., Indianapolis, Ind.
Memphis Machine Works, 171 Vance St., Memphis, Tenn.
Menasha Wood Split Pulley Co., 674 Tayco St., Menasha, Wis.
Menaugh & Co., 605 Washington Blvd., Chicago, Ill.
Merchant & Evans Co., 2035 Washington Ave., Philadelphia, Pa.
Merco Nordstrom Valve Co., 343 Sansome St., San Francisco, Calif.
Mercoid Corp., The, 4201 Belmont Ave., Chicago, Ill.
Meriam Co., The, 1955 W. 112th St., Cleveland, Ohio.
Merkle Broom Co., Paris, Ill.
Merrell Manufacturing Co., 857 Curtis St., Toledo, Ohio.
Merrick Scale Mfg. Co., 180 Autumn St., Passaic, N. J.
Merriman Bros., Inc., 185 Amory St., Boston, Mass.
Messinger Bearings, Inc., D St., above Erie, Philadelphia, Pa.
Messmer Brass Co., 2700 S. 7th St., St. Louis, Mo.
Metal Saw & Machine Co., Inc., 40 Napier St., Springfield, Mass.
Metal Specialties Mfg. Co., 3200 Carroll Ave. at Kedzie Ave., Chicago, Ill.
Metallo Gasket Co., 10-18 Bethany St., New Brunswick, N. J.
Metzgar Co., Inc., The, 503-515 Grandville Ave., Grand Rapids, Mich.
Meurer Steel Barrel Co., Inc., 105 Ave. L., Newark, N. J.
Mey Chain Belt Co., 82 Washington St., Buffalo, N. Y.
Meyer Coupling Co., Inc., 324 N. San Pedro St., Los Angeles, Calif.
Michigan Engine Valve Co., 437 West Columbia St., Detroit, Mich.
Michigan Leather Packing Co., Inc., 750 Fourteenth Ave., Detroit, Mich.
Michigan Pipe Co., 503 Phoenix Bldg., Bay City, Mich.
Michigan Smelting & Refining Co., 2512 E. Grand Blvd., Detroit, Mich.
Michigan Sprocket Chain Co., 7818 Jefferson Ave., W., Detroit, Mich.
Michigan Wire Cloth Co., 2112 Howard St., Detroit, Mich.
Micro Corp., The, Bettendorf, Iowa.
Midland Mfg. Co., 67 Jennings Ave., Ft. Worth, Tex.
Mid-West Abrasive Co., 2189 Beaufait St., Detroit, Mich.
Midwest Broom Manufacturing Co., Half Ave. & Clinton St., Circleville, Ohio.
Midwest Manufacturing Co., Bradford, Pa.
Midwest Piping & Supply Co., Inc., 1420 S. Second St., St. Louis, Mo.
Mid-West Screw Product Co., Main & St. George Sts., St. Louis, Mo.
Milbradt Mfg. Co., 2410-12 N. 10th St., St. Louis, Mo.
Milburn, Alexander, Co., The, 1416-1428 W. Baltimore St., Baltimore, Md.
Miley, L. J., Co., Inc., 1462 S. Michigan Ave., Chicago, Ill.
Miller, E. L., Mfg. Co., 22 W. 3rd St., Kansas City, Mo.
Miller Improved Gas Engine Co., The, Fair & Plum Sts., Springfield, Ohio.
Miller Machine Works, Springs, Pa.
Miller Mfg. Co., 124 Main St., Cedar Falls, Iowa.
Miller Peerless Manufacturing Co., Chicago, Ill.
Miller Rubber Co., The, 1247 High St., Akron, Ohio.
Miller Tool & Mfg. Co., Inc., 1725-41 16th St., Detroit, Mich.
Miller, Walter W., Co., 557 E. Washington St., Indianapolis, Ind.
Millers Falls Co., Greenfield, Mass.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Milton Manufacturing Co., The, Milton, Pa.
Milwaukee Brush Manufacturing Co., The, 2236 N. 30th St., Milwaukee, Wis.
Milwaukee Electric Crane & Hoist Corp., 60th St. & Greenfield Ave., West Allis, Wis.
Milwaukee Electric Tool Corp., 54th & Rogers St., Milwaukee, Wis.
Milwaukee Hardware Co., Wm. Bolles, Prop., 120 Clinton St., Milwaukee, Wis.
Milwaukee Leather Belting Co., 508 N. Water St., Milwaukee, Wis.
Milwaukee Steam Appliance Co., West Allis, Wis.
Milwaukee Tack Co., 37th St. & Cleveland Ave., Milwaukee, Wis.
Milwaukee Valve Co., 2375 S. Burrell St., Milwaukee, Wis.
Mine Safety Appliances Co., Braddock, Thomas & Meade Sts., Pittsburgh, Pa.
Minneapolis Honeywell Regulator Co., 2747 4th Ave., S., Minneapolis, Minn.
Minnesota Mining & Mfg. Co., Forest & Fauquier Sts., St. Paul, Minn.
Minnich Machine Works, Landisville, Pa.
Misener Mfg. Co., Inc., 328 E. Washington St., Syracuse, N. Y.
Missouri Belting Co., 1021 S. Grand Blvd., St. Louis, Mo.
Mitchell, W. K., & Co., 2840 Ellsworth St., Philadelphia, Pa.
Mitts and Merrill, 1009 S. Water St., Saginaw, Mich.
Moak Machine & Tool Co., 25-47 Connor St., Port Huron, Mich.
Moccasin Bushing Co., 2000 Chestnut St., Chattanooga, Tenn.
Mockbee, C. M., Co., 816 E. Pearl St., Cincinnati, Ohio.
Modern Engineering Co., 3411-13 Pine Blvd., St. Louis, Mo.
Modern Grinder Mfg. Co., 64 Reed St., Milwaukee, Wis.
Modern Machine Tool Co., 601 S. Water St., Jackson, Mich.
Modern Mfg. Co., The, 4734 Hough Ave., Cleveland, Ohio.
Moeller Instrument Co., Inc., 261-5 Sumpter St., Brooklyn, N. Y.
Moffatt Machinery Mfg. Co., Third St., Charlotte, N. C.
Mohn Machine Co., 230 Wood St., Reading, Pa.
Moline Malleable Iron Co., St. Charles, Ill.
Moline Tool Co., 102 20th St., Moline, Ill.
Moloch Foundry & Machine Co., Kaukauna, Wis.
Moloney Belting Co., 1291 Elston Ave., Chicago, Ill.
Moltrup Steel Products Co., 14th St., & 2nd Ave., Beaver Falls, Pa.
Monarch Cap Screw & Mfg. Co., The, 5906 Park Ave., Cleveland, Ohio.
Monarch Metal Co., 119 S. Lincoln St., Chicago, Ill.
Monarch Soot Remover Co., Inc., 261 Franklin St., Boston, Mass.
Mont, A. W., & Co., Inc., Plainville, Conn.
Montgomery-Stewart Co., 523-25-27 Cherry St., Philadelphia, Pa.
Moore Flange Corp., 103 Park Ave., New York, N. Y.
Moore-Master Mfg. Co., 3445-47 N. Western Ave., Chicago, Ill.
Moore Steam Turbine Corp., 38 Coats St., Wellsville, N. Y.
Moore & White Co., The, 15th St. & Lehigh Ave., Philadelphia, Pa.
Moran Flexible Steam Joint Co., 217 W. Main St., Louisville, Ky.
Morgan Vise Co., 110 N. Jefferson St., Chicago, Ill.
Morganmade, Inc., 151 Congress St., Keene, N. H.
Morrill, Chas., Inc., 100 Lafayette St., New York, N. Y.
Morris Machine Works, Baldwinsville, N.Y.
Morris Metallic Packing Co., Lehigh Ave. & Mutter St., Philadelphia, Pa.
Morris Truck & Wheel Co., Inc., 760-790 S. 42nd St., Philadelphia, Pa.
Morrison Bros., 24th & Elm Sts., Dubuque, Iowa.
Morse Chain Co., Ithaca, N. Y.
Morse Grate Bar Co., Inc., 86 Weybosset St., Providence, R. I.
Morse Twist Drill & Machine Co., 163 Pleasant St., New Bedford, Mass.
Morton Manufacturing Co., Muskegon Heights, Mich.
Moseley Lathe Co., The, 162 Brook St., Elgin, Ill.
Moss, Henry, & Co., Inc., 113 53rd St., Brooklyn, N. Y.
Moto Meter Gauge & Equipment Corp., 449 Hamilton St., Toledo, Ohio.
Mott Sand Blast Mfg. Co., Inc., 4611-4621 Flournoy St., Chicago, Ill.
Mountville Mfg. Co., Mountville, Pa.
Mueller Brass Co., 1925 Lapeer Ave., Port Huron, Mich.
Mueller Co., 512 W. Cerro Gordo St., Decatur, Ill.
Mulconroy Co., Inc., 54th & Jefferson Sts., Philadelphia, Pa.
Mummert-Dixon Co., Philadelphia & Gay Sts., Hanover, Pa.
Murdock, M. F., Co., 310 Water St., Akron, Ohio.
Murphy, E. L., 38 S. Dearborn St., Chicago.
Murphy Metals Co., 7 S. Dearborn St., Chicago, Ill.
Murray Iron Works Co., 1106 Washington St., Burlington, Iowa.
Murray, William H., 9121 108th St., Richmond Hill, New York, N. Y.
Myers, F. E., & Bro. Co., The, Ashland, O.

N

N. A. C. Corporation, The, Ninth & Cooper Sts., Camden, N. J.
Nagle Engine & Boiler Works, 234 E. 16th St., Erie, Pa.
Napier Saw Works, Inc., 22 Cottage St., Middletown, N. Y.
Nason Manufacturing Co., 71 Fulton St., New York, N. Y.
National Acme Co., The, Coit Rd. & E. 131st St., Cleveland, Ohio.
National Asbestos Mfg. Co., The, 163 Henderson St., Jersey City, N. J.
National Boiler Protector Co., 740-41 Reibold Bldg., Dayton, Ohio.
National Carbide Sales Corp., Lincoln Bldg., 60 E. 42nd St., New York, N. Y.
National Carbon Co., Inc., P. O. Box 400, Cleveland, Ohio.
National Copper & Smelting Co., The, 1862 E. 123rd St., Cleveland, Ohio.
National Dry Kiln Co., The, 446 W. Georgia St., Indianapolis, Ind.
National Lead Co., 111 Broadway, New York, N. Y.
National Machine Tool Co., 1536 Clark St., Racine, Wis.
National Motor Bearing Co., Inc., 1100 78th Ave., Oakland, Calif.
National Radiator Corp., 221 Central Ave., Johnstown, Pa.
National Manufacturing Corp., Tonawanda, N. Y.
National Screw & Mfg. Co., The, 2440 E. 75th St., Cleveland, Ohio.
National Transit Pump & Machine Co., 19 N. Petroleum St., Oil City, Pa.
National Tube Co., Frick Bldg., Pittsburgh, Pa.
National Twist Drill & Tool Co., 6522-44 Brush St. at E. Grand Blvd., Detroit, Mich.
Naylor Pipe Co., 1230 92nd St., Chicago, Ill.
Neely Nut & Bolt Co., 2101 Wharton St., Pittsburgh, Pa.
Neilan Co., Ltd., (Division of Mason Regulator Co.), 641-651 Santa Fe Ave., Los Angeles, Calif.
Nelson Bros. Co., Saginaw, Mich.
Nelson, L. R., Mfg. Co., Inc., 1725 S. Washington St., Peoria, Ill.
Never Slip Safety Clamp Co., Grand Central Annex, P. O. Box 448, New York, N.Y.
Newark Brush & Scraper Co., 390-396 Nye Ave., Irvington, N. J.
Newark Wire Cloth Co., 351 Verona Ave., Newark, N. J.
Newbury, Jay H., & Sons, Inc., 67 Spring St., Goshen, N. Y.
Newbury Manufacturing Co., Monroe, N. Y.
New England Screw Co., 44-54 Farnsworth St., Boston, Mass.
Newhall Chain Forge & Iron Co. Division of Henry B. Newhall Corp., 48 W. Broadway, New York, N. Y.
New Jersey Zinc Co., The, 160 Front St., New York, N. Y.
Newman Bros., Inc., 418 Elm St., Cincinnati, Ohio.
New Process Twist Drill Co., 34 Court St., Taunton, Mass.
New York Belting & Packing Co., 1 Market St., Passaic, N. J.
New York Brass Foundry Co., 405 Broome St., New York, N. Y.
Niagara Machine & Tool Works, 637-697 Northland Ave., Buffalo, N. Y.
Nicholson File Co., 23 Acorn St., Providence, R. I.
Noble & Westbrook Mfg. Co., The, 20 Westbrook St., East Hartford, Conn.
Norma-Hoffmann Bearings Corp., Stamford, Conn.
North Bros. Mfg. Co., American St. and Lehigh Ave., Philadelphia, Pa.
Northern Incandescent Lamp Co., Hoboken, N. J.
Northern Metallic Packing Co., 429 University Ave., St. Paul, Minn.
Northern Specialty Co., 808 Union St., Utica, N. Y.
Northfield Foundry & Machine Co., Northfield, Minn.
Northwest Lead Co., 1744 4th Ave., S., Seattle, Wash.
Northwestern Barb Wire Co., Sterling, Ill.
Norton Belting Co., 21 Cushing Rd., Wellesley Hills, Mass.
Norton Company, 1 New Bond St., Worcester, Mass.
Norton Pike Co., Pike, N. H.
Nott, W. S., Co., 201-11 N. 3rd St., Minneapolis, Minn.
Novelty Steam Boiler Works Co., The, Clare & Kloman Sts., Baltimore, Md.
Noyes, B. B., Co., 106 Hope St., Greenfield, Mass.

Nugent, Wm. W., & Co., 410-412 N. Hermitage Ave., Chicago, Ill.
Nunn Brass Works, 17 Wentworth St., Rochester, N. Y.
Nute, McGehee, Geary Co., Inc., The, S. Main St., Chambersburg, Pa.
Nutting Truck Co., 1122 W. Division St., Faribault, Minn.
Nye Steam Pump & Machinery Co., 621 S. Kolmar Ave., Chicago, Ill.
Nye Tool & Machine Works, The, 4120 Fullerton Ave., Chicago, Ill.

O

O. K. Clutch & Machinery Co., Columbia, Pa.
Ober Mfg. Co., The, Chagrin Falls, Ohio.
Oberdorfer, M. L., Brass Co., Syracuse, N.Y.
Ohio Brass Co., Mansfield, Ohio.
Ohio Buff & Mfg. Co., The, 610 Burns St., Cincinnati, Ohio.
Ohio Injector Co., The, 243 Main St., Wadsworth, Ohio.
Ohio Knife Co., The, Dreman Ave. & B. & O. R. R., Cincinnati, Ohio.
Ohio Valley Pulley Works, Inc., Maysville, Ky. (
Ohlen-Bishop Co., The, Ingleside Ave. and Simpson Lane, Columbus, Ohio.
Okonite Co., The, Passaic, N. J.
Oliver-Barth Jack Co., 1669 S. First St., Milwaukee, Wis.
Oliver, W. W., Mfg. Co., The, 1483 Niagara St., Buffalo, N. Y.
O'Meara Belting Co., 716 N. 28th Ave., Omaha, Neb.
Onan, D. W., & Sons, 43 Royalston Ave., Minneapolis, Minn.
Oneida Wood Pulley Co., Inc., 436 W. Railroad St., Oneida, N. Y.
Onesti Bros., Highland Park, Ill.
Onsrud Machine Works, Inc., 3903 Palmer St., Chicago, Ill.
Orange Roller Bearing Co., 557 Main St., Orange, N. J.
Orr & Sembower, Inc., Reading, Pa.
Orum, S. R. M., Inc., 503 N. 11th St., Philadelphia, Pa.
Osborn Manufacturing Co., The, 5401 Hamilton Ave., Cleveland, Ohio.
Osgood, J. L., Machinery & Tool Co., Inc., 43 Pearl St., Buffalo, N. Y.
Oster-Williams, 2057 E. 61st Pl., Cleveland, Ohio.
Otley Paint Mfg. Co., 1742 N. Winchester Ave., Chicago, Ill.
Ottemiller, Wm. H., Co., Inc., The, Pattison St. and M. P. R. R., York, Pa.
Outing Manufacturing Company, 571 E. Jackson Blvd., Elkhart, Ind.

P.

Paasche Airbrush Co., 1909 Diversey Parkway, Chicago, Ill.
Pacific Chemical Co., 114 College St., Los Angeles, Calif.
Pacific Mfg. & Equipment Co., 3136 Folsom Blvd., San Francisco, Calif.
Pacific States Cast Iron Pipe Co., Box 18, Provo, Utah.
Page Belting Co., Concord, N. H.
Page Steel and Wire Division of American Chain Co., Inc., Monessen, Pa.
Palmer-Bee Co., 1701 Poland Ave., Detroit, Mich.
Pancoast, Henry B., Co., 950 N. Front St., Philadelphia, Pa.
Pannier Bros. Stamp Co., 207-209 Sandusky St., Pittsburgh, Pa.
Paraffine Companies, Inc., The, 475 Brannan St., San Francisco, Calif.
Parker Appliance Co., The, 10320 Berea Road, Cleveland, Ohio.
Parker, Charles Co., The, 48 Elm St., Meriden, Conn.
Parker Cup & Specialty Works, Inc., River Ave., Parkers Landing, Pa.
Parker-Kalon Corp., 200 Varick St., New York, N. Y.
Parker Rust Proof Co., 2177 Milwaukee Ave., E., Detroit, Mich.
Parks, Harry S., Co., 3334 Market St., Philadelphia, Pa.
Patent Scaffolding Co., The, 1550 Dayton St., Chicago, Ill.
Patterson Lubricating Co., 11-13 Storer St., Boston, Mass.
Paul, J. C., & Co., 930 Roscoe St., Chicago, Ill.
Paulus, Jos. C., & Co., 2507 Potter St., Philadelphia, Pa.
Payson Mfg. Co., The, 2920 Jackson Blvd., Chicago, Ill.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Peerless Level & Tool Co., The, Sterling, Ill.
Peerless Machine Co., 1615-17 Racine St., Racine, Wis.
Pels, Henry, & Co., Inc., 90 West St., New York, N. Y.
Penberthy Injector Co., 1242 Holden Ave., Detroit, Mich.
Penn Brass & Copper Co., 1124 W. 18th St., Erie, Pa.
Pennsylvania Boiler Works, Erie, Pa.
Pennsylvania Flexible Metallic Tubing Co. 72nd & Powers Lane, Philadelphia, Pa.
Pennsylvania Furnace & Iron Co., 316 Pine St., Warren, Pa.
Peninsular Grinding Wheel Co., 729 Meldrum Ave., Detroit, Mich.
Perkes, Charles, Co., 1508 N. Mascher St., Philadelphia, Pa.
Perkins & Co., 562 Front Ave., N. W., Grand Rapids, Mich.
Perkins Glue Co., 632 Cannon Ave., Lansdale, Pa.
Perkins Marine Lamp Corp., 1943 Pitkin Ave., Brooklyn, N. Y.
Permutit Co., The, 440 4th Ave., New York, N. Y.
Peterson, F. W., Co., 117 Prince St., New York, N. Y.
Pfeiffer, John, & Co., 222 Race St., Philadelphia, Pa.
Pheoll Mfg. Co., 5702 Roosevelt Rd., Chicago, Ill.
Philadelphia Gear Works, Erie Ave. & G St., Philadelphia, Pa.
Philadelphia Grease Mfg. Co., The, 846-850 S. Swanson St., Philadelphia, Pa.
Philadelphia Pipe Bending Co., The, 4135-65 N. 5th St., Philadelphia, Pa.
Philadelphia Thermometer Co., 915 Filbert St., Philadelphia, Pa.
Phoenix Fire Extinguisher Co., 9 Grove St., Norwich, Conn.
Pierce, Wm. B., Co., The, 45 N. Division St., Buffalo, N. Y.
Pilley Packing & Flue Brush Mfg. Co., 606-608 & 610 S. 3rd St., St. Louis, Mo.
Pioneer Rubber Mills, 345-353 Sacramento St., San Francisco, Calif.
Pipe Saver Corp. of America, Carthage, N. Y.
Piqua Munising Wood Products Co., The, Union Trust Bldg., Cleveland, Ohio.
Pittsburgh Brass Mfg. Co., Penn Ave. at 32nd St., Pittsburgh, Pa.
Pittsburgh Crushed Steel Co., 61st St. & A. V. R. R., Pittsburgh, Pa.
Pittsburgh Engineering Works, P. O. Box 1125, Pittsburgh, Pa.
Pittsburgh Plate Glass Co., Brush Division, 3221 Frederick Ave., Baltimore, Md.
Pittsburgh Screw & Bolt Corp., P. O. Box 752, Pittsburgh, Pa.
Pittsburgh Thermoline Co., 45 S. 20th St., Pittsburgh, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Pittsburgh Valve & Fittings Co., Newel St., Barberton, Ohio.
Plant Engineering & Equipment Co., Inc., 68 Summit St., Brooklyn, N. Y.
Plews Oiler Co., 258 Sexton Bldg., Minneapolis, Minn.
Plomb Tool Co., 2209 Santa Fe St., Los Angeles, Calif.
Plumb, Fayette R., Inc., 4837 James St., Philadelphia, Pa.
Plymouth Cordage Co., North Plymouth, Mass.
Plymouth Foundry and Machine Co., Plymouth, Wis.
Pollard Bros. Mfg. Co., 4444 N. Knox Ave., Chicago, Ill.
Pomona Pump Co., 206 E. Commercial St., Pomona, Calif.
Portable Power Tool Corp., Warsaw, Ind.
Porter-Cable-Hutchinson Corp., 1714 N. Salina St., Syracuse, N. Y.
Porter, H. K., Inc., 6 Ashland St., Everett, Mass.
Porter Manufacturing Co., (Division of Monarch Metal Co.), 119 S. Lincoln St., Chicago, Ill.
Positive Lock Washer Co., Ave. A. & Miller St., Newark, N. J.
Powell, Wm., Co., The, 2525 Spring Grove Ave., Cincinnati, Ohio.
Power Manufacturing Co., The, Cheney Ave. (P. O. Box 508), Marion, Ohio.
Powers Regulator Co., The, 2720 Greenview Ave., Chicago, Ill.
Pratt & Whitney Co., 436 Capitol Ave., Hartford, Conn.
Pratt, Wm. E., Mfg. Co., Henderson & Norton Aves., Joliet, Ill.
Precision Grinding Wheel Co., Inc., Holmesburg, Philadelphia, Pa.
Premax Sales Division, Chisholm-Ryder Co., Inc., Niagara Falls, N. Y.
Prentiss Vise Co., 110 Lafayette St., New York, N. Y.
Priddle, Arthur, 693 Mission St., San Francisco, Calif.
Prier Brass Mfg. Co., 15th St. & Blue River, Kansas City, Mo.
Procunier Safety Chuck Co., 18 S. Clinton St., Chicago, Ill.
Products Manufacturing Co., 416 N. Milwaukee St., Milwaukee, Wis.
Protection Products Co., 503 New Center Bldg., Detroit, Mich.
Pulmosan Safety Equipment Corp., 176 Johnson St., Brooklyn, N. Y.
Pulsometer Steam Pump Co., 485 S. 21st St., Irvington, N. J.
Pumpless Blow Torch Co., 909 Keystone Bldg., Pittsburgh, Pa.
Punxsutawney Foundry and Machine Co., Railroad St., Punxsutawney, Pa.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Pyott Foundry & Machine Co., 328 N. Sangamon St., Chicago, Ill.
Pyrene Manufacturing Co., 560 Belmont Ave., Newark, N. J.

Q

Quadriga Mfg. Co., The, 213 W. Grand Ave., Chicago, Ill.
Quaker City Rubber Co., Wissinoming, Philadelphia, Pa.
Quickwork Co., The, St. Marys, Ohio.
Quigley Co., Inc., 56 W. 45th St., New York.
Quincy Compressor Co., 3rd & Maine Sts., Quincy, Ill.

R

R. S. Products Corp., 4530 Germantown Ave., Philadelphia, Pa.
Racine Tool & Machine Co., 1700 State St., Racine, Wis.
Rahmann, Geo., & Co., 31 Spruce St., New York, N. Y.
Ramsey Chain Co., Inc., Albany, N. Y.
Randle Machinery Co., The, 1723 Powers St., Cincinnati, Ohio.
Raniville, F., Co., 241-249 Pearl St., Grand Rapids, Mich.
Rapid Spring Co., The, Imperial Bldg., Pittsburgh, Pa.
Rauch Manufacturing Co., The, Front & Joplin Sts., Galena, Kan.
Rauschenberger, John, Co., 423 N. Plankinton Ave., Milwaukee, Wis.
Rawlplug Co., Inc., The, 98 Lafayette St., New York, N. Y.
Raybestos Division of Raybestos-Manhattan, Inc., 1437 Railroad Ave., Bridgeport, Conn.
Ray Pressure Snubber Co., 315 E. Fifth St., Charlotte, N. C.
Reading Chain & Block Corp., 2150 Adams St., Reading, Pa.
Reading Iron Co., 401 N. Broad St., Philadelphia, Pa.
Reading-Pratt & Cady Co., Inc., 929 Connecticut Ave., Bridgeport, Conn.
Reardon Co., The, 2201 N. Second St., St. Louis, Mo.
Red Cross Mfg. Co., The, Bluffton, Ind.
Red Devil Manufacturing Co., Bellwood, Ill.
Red Star Products Corp., P. O. Sta. D, Cleveland, Ohio.
Reed, Francis Co., 43 Hammond St., Worcester, Mass.
Reed Manufacturing Co., Erie, Pa.
Reed-Prentice Corp., 677 Cambridge St., Worcester, Mass.
Reed & Prince Mfg. Co., 1 Duncan Ave., Worcester, Mass.
Rees', Hans, Sons, 39 Frankfort St., New York, N. Y.
Reeves Pulley Co., 1225 7th St., Columbus, Ind.
Reichel & Drews, 452-4-6 N. Ashland Ave., Chicago, Ill.
Reiter, G. C., Box 408, 1917 Henry Ave., S. W., Canton, Ohio.
Remington Rand, Inc., 465 Washington St., Buffalo, N. Y.
Republic Flow Meters Co., 2240 Diversey Parkway, Chicago, Ill.
Republic Rubber Co., The, Albert St., Youngstown, Ohio.
Republic Steel Corp., Republic Bldg., Youngstown, Ohio.
Republic Steel Package Co., The, 7930 Jones Road, Cleveland, Ohio.
Revere Copper and Brass, Inc. (Dallas Division), 2200 N. Natchez Ave., Chicago.
Reznor Mfg. Co., E. Market St., Mercer, Pa.
Rhoads, J. E., & Sons, 35 N. 6th St., Philadelphia, Pa.
Rhode Island Fittings Co., Hills Grove, R. I.
Rhodes Manufacturing Co., The, Ames St., Waltham, Mass.
Rhopac Products Corp., 2354 Lincoln Ave., Chicago, Ill.
Rich Pump and Ladder Co., The, Depot & Gest Sts., Cincinnati, Ohio.
Richard Badger-Packard Co., 3423 W. Vliet St., Milwaukee, Wis.
Richards-Wilcox Mfg. Co., 3rd & Lake Sts., Aurora, Ill.
Richardson, Edro, Brass Co., The, Monument & Kresson Sts., Baltimore, Md.
Richmond Belt Dressing Mfg. Co., Inc., P. O. Box 621, Richmond, Va.
Rickersberg Brass Co., The, 3830 Kelley Ave., Cleveland, Ohio.
Ridge Tool Co., The, Elyria, Ohio.
Rinald, H., Co., P. O. Box 4051, West Philadelphia, Pa.
Rinn, Albert E., Co., Allentown, Pa.
Riverside Mills, Inc., 1 11th St., Augusta, Ga.
Rivet Cutting Gun Co., 125 E. 3rd St., Cincinnati, Ohio.
Robbins & Myers, Inc., Hoist & Crane Division, 1345 Lagonda Ave., Springfield, Ohio.
Roberts Brass Co., 176-180 Lincoln Ave., Milwaukee, Wis.

Roberts Brass Mfg. Co., The, 5435 Fort St., W., Detroit, Mich.
Roberts Manufacturing Co., 12 Beacham St., Everett, Mass.
Robertson, W., Machine & Foundry Co., 56-58 Rano St., Buffalo, N. Y.
Robinson, D., Sons, 1342 Harper Ave., Detroit, Mich.
Robinson Fire Apparatus Mfg. Co., 4250-68 N. 20th St., St. Louis, Mo.
Robinson Mfg. Co., Baldwin & Kelsey Sts., Waterbury, Conn.
Rochester Can Co., 109 Hague St., Rochester, N. Y.
Rochester Lead Works, 380 Exchange St., Rochester, N. Y.
Rochester Machine Screw Co., 161-175 Clarissa St., Rochester, N. Y.
Rock Island Mfg. Co., 1533 1st St., Rock Island, Ill.
Rock River Machine Co., 413 N. Main St., Janesville, Wis.
Rockford Brass Works, 700 S. Main St., Rockford, Ill.
Rockford Drilling Machine Co., Catherine St., Rockford, Ill.
Rockford Machine Tool Co., 2400 Kishwaukee St., Rockford, Ill.
Rockford Screw Products Co., 2521 Ninth St., Rockford, Ill.
Rockwood Mfg. Co., The, 1801 English Ave., Indianapolis, Ind.
Roebling's John A., Sons Co., 640 S. Broad St., Trenton, N. J.
Rogers Metal Works, 2123 Jefferson St., Kansas City, Mo.
Rogers, Samuel C., & Co., 191-205 Dutton Ave., Buffalo, N. Y.
Roller Bearing Company of America, Whitehead Road, Trenton, N. J.
Rome Brass & Copper Co. (Division of Revere Copper and Brass, Inc.), Bouck St., Rome, N. Y.
Roots-Connersville-Wilbraham (Division of International-Stacey Corp.), Connersville, Ind.
Rope Fire Escape Co., 924 N. 13th St., Philadelphia, Pa.
Roper, Geo. D., Corp., Blackhawk Ave., Rockford, Ill.
Rose, Frank, Mfg. Co., Hastings, Neb.
Ross Heater & Mfg. Co., Inc., 1407-11 West Ave., Buffalo, N. Y.
Ross Mfg. Co., The, 6402 Cedar Ave., Cleveland, Ohio.
Round, David, and Son, Stop 3, A. B. C. Line, Cleveland, Ohio.
Rowe Manufacturing Co., 614 W. 3rd St., Galesburg, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Rowell Mfg. Co., 713-721 N. Union St., Appleton, Wis.
Royal Metal Mfg. Co., 1138-40 S. Michigan Ave., Chicago, Ill.
Royersford Foundry & Machine Co., Inc., Main St., & 1st Ave., Royersford, Pa.
Rubberset Co., 75 West St., New York, N. Y.
Rubberwear Glove Co., 483 Kenmore Blvd., Akron, Ohio.
Ruberoid Co., The, 95 Madison Ave., New York, N. Y.
Ruby Chemical Co., The, 68-70 McDowell St., Columbus, Ohio.
Ruemelin Mfg. Co., S. 1570 First St., Milwaukee, Wis.
Ruleta Co., Inc., 91 Warren St., New York, N. Y.
Rumsey Pump Co., Ltd., Johnston St., Seneca Falls, N. Y.
Russell, Burdsall & Ward Bolt and Nut Co., Midland Ave., Port Chester, N. Y.
Russell Electric Co., 340 W. Huron St., Chicago, Ill.
Russell Mfg. Co., Middletown, Conn.
Ryerson, Joseph T., & Son, Inc., 2558 W. 16th St., Chicago, Ill.

S

S. E. T. Valve and Hydrant Co., 50 Church St., New York, N. Y.
S.K.F. Industries, Inc., Front St. & Erie Ave., Philadelphia, Pa.
Sackett, H. B., Screen & Chute Co., 1685 Elston Ave., Chicago, Ill.
Sacramento Pipe Works, 116 N. 16th St., Sacramento, Calif.
Safety Belt-Lacer Co., Toledo Factory Bldg., Toledo, Ohio.
Safety Equipment Service Co., 1228 St. Clair Ave., Cleveland, Ohio.
Safety Fire Extinguisher Co., The, 293 7th Ave., New York, N. Y.
Safety First Shoe Co., Holliston, Mass.
Safety Grinding Wheel & Machine Co., The, Columbus Ave. & Wheel St., Springfield, Ohio.
Safety Truck Brake Co., Inc., 112 N. Outagamie St., Appleton, Wis.
Safety Wrench & Appliance Co., 56 Commercial Ave., Worcester, Mass.
Saginaw Stamping & Tool Co., 90 Williamson St., Saginaw, Mich.
St. Louis Cordage Mills, 11th & Lafayette, St. Louis, Mo.
Salisbury, W. H., & Co., Inc., 401-421 N. Morgan St., Chicago, Ill.
Sampson Tool Co., Inc., 101 Walker St., New York, N. Y.
Samson Cordage Works, 89 Broad St., Boston, Mass.
Sands Mfg. Co., The, 5407 Sweeney Ave., Cleveland, Ohio.
Sandvik Saw & Tool Corp., 740 Washington Ave. N., Minneapolis, Minn.
Sandvik Steel, Inc., Woolworth Bldg., New York, N. Y.
Sanitary Washed Wiper Co., 19-25 E. South St., Indianapolis, Ind.
Sarco Co., Inc., 183 Madison Ave., New York, N. Y.
Sargent Co., 2073 Southport Ave., Chicago.
Sargent & Co., P. O. Box 1540, New Haven, Conn.
Saylor-Beall Manufacturing Co., 1501 E. Philadelphia Ave., Detroit, Mich.
Scaife, Wm. B., & Sons Co., Oakmont, Pa.
Schade Valve Mfg. Co., 2527 N. Bodine St., Philadelphia, Pa.
Schaefer & Beyer, 50-52 Bragaw Ave., Newark, N. J.
Schaefer Brush Mfg. Co., 1009 So. 2nd St., Milwaukee, Wis.
Schatz Mfg. Co., Poughkeepsie, N. Y.
Schauer Machine Co., The, 905 Broadway, Cincinnati, Ohio.
Schieren, Chas. A., Co., 30 Ferry St., New York, N. Y.
Schollhorn, Wm., Co., The, 414 Chapel St., New Haven, Conn.
Schultz, A. L., & Son, 1675 Elston Ave., Chicago, Ill.
Schutte & Koerting Co., 12th & Thompson Sts., Philadelphia, Pa.
Schwenk Safety Device Corp., 27 Water St., New York, N. Y.
Scott Valve Manufacturing Co., 3963 McKinley Ave., Detroit, Mich.
Scovill Mfg. Co., 99 Mill St., Waterbury, Conn.
Scranton Pump Co., The, 1445 Meylert Ave., Scranton, Pa.
Scully-Jones & Co., Tool Division, 1901 S. Rockwell St., Chicago, Ill.
Scully Steel & Iron Co., 2364 S. Ashland Ave., Chicago, Ill.
Security Insert Co., 1424 Widener Bldg., Philadelphia, Pa.
Self Cleaning Strainer Co., 5125 S. Carpenter St., Chicago, Ill.
Semler Co., Jeannette, Pa.
Sero Specialty Co., 2860 E. 84th St., Cleveland, Ohio.
Service Caster & Truck Co., The, 529 N. Albion St., Albion, Mich.
Shafer Bearing Corp., 621 S. Kolmar Ave., Chicago, Ill.
Shaw Kendall Engineering Co., The, 120-130 S. Superior St., Toledo, Ohio.
Shawinigan Products Corp., Empire State Bldg., New York, N. Y.
Sheffield Steel Corp., Sheffield Station, Kansas City, Mo.
Sheldon Machine Co., 3253-55 Cottage Grove Ave., Chicago, Ill.
Shepard Niles Crane and Hoist Corp., Montour Falls, N. Y.
Sherman, H. B., Mfg. Co., 22 Barney St., Battle Creek, Mich.
Sherwin-Williams Co., The, 601 Canal Rd., N. W., Cleveland, Ohio.
Shingle-Gibb Leather Co., 54th St. & Grays Ave., Philadelphia, Pa.
Shortridge, Edwin G., & Co., 615 S. Armstrong St., Kokomo, Ind.
Shuron Optical Co., Inc., Geneva, N. Y.
Sibley Machine & Foundry Co., South Bend, Ind.
Sidney Steel Scraper Co., The, Sidney, Ohio.
Sight-Feed Generator Co., Richmond, Ind.
Signal Electric Mfg. Co., Menominee, Mich.
Silver Lake Co., 99 Chauncy St., Boston, Mass.
Silvey Pipe Bender Co., 2215 Brighton Ave., Kansas City, Mo.
Simonds Saw and Steel Co., Fitchburg, Mass.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., 551-553 W. Lake St., Chicago, Ill.
Simplex Time Recorder Co., S. Lincoln, Gardner, Mass.
Simplex Wire & Cable Co., 79 Sidney St., Boston, Mass.
Skat Co., The, 1711 Park Ave., Hartford, Conn.
Skidmore Corp., St. Joseph, Mich.
Skilsaw, Inc., 3310 Elston Ave., Chicago, Ill.
Skinner Chuck Co., The, 344 Church St., New Britain, Conn.
Skinner, M. B., Co., 3502 W. Sample St., South Bend, Ind.
Slip Not Belting Corp., Kingsport, Tenn.
Slocomb, J. T., Co., 35 Oxford St., Providence, R. I.
Smith & Egge Division of The Turner & Seymour Mfg. Co., Lafayette & Allen Sts., Torrington, Conn.
Smith, F. P., & Co., Sharon Hill, Pa.
Smith & Kanzler, Inc., 516 Lidgerwood Ave., Elizabeth, N. J.
Smith Power Transmission Co., The, Penton Bldg., Cleveland, Ohio.
Smith & Serrell, 20 Washington Pl., Newark, N. J.
Smith Welding Equipment Corp., 2619-33 4th St., S. E., Minneapolis, Minn.
Smith, Winfield H., Inc., 20 Eaton St., Springville, N. Y.
Smooth-On Manufacturing Co., 568-574 Communipaw Ave., Jersey City, N. J.
Smyth-Despard Co., 800 Broad St., Utica, N. Y.
Snap-On Tools, Inc., Kenosha, Wis.
Solarine Co., Smallwood & Eagle Sts., Baltimore, Md.
Somerville Iron Works, James St., Somerville, N. J.
South Bend Lathe Works, 425 E. Madison St., South Bend, Ind.
South Chester Tube Co., Front & Thurlow Sts., Chester, Pa.
Southwestern Broom Mfg. Co., The, 501 N. 9th Ave., Evansville, Ind.
Spang, Chalfant & Co., Inc., Clark Bldg., Pittsburgh, Pa.
Spartan Glove Co., 469 Maryland Ave., Dayton, Ohio.
Spartan Saw Works, Inc., Springfield, Mass.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Speedway Manufacturing Co., 1834 S. 52nd Ave., Cicero, Ill.
Speer Carbon Co., Lincoln Ave., St. Marys, Pa.
Speidel Elevator Corp., 245 W. Buttonwood St., Reading, Pa.
Spraco, Inc., 114 Central St., Somerville, Mass.
Springfield Waste Co., 109 Mill St., Springfield, Mass.
Sprout, Waldron & Co., Inc., Muncy, Pa.
Stafford Co., The, 205 W. Wacker Drive, Chicago, Ill.
Stalter Edge Tool Co., 321 Straight Ave., S. W., Grand Rapids, Mich.
Standard Asbestos Mfg. Co. of Chicago, 820 W. Lake St., Chicago, Ill.
Standard Electrical Tool Co., The, 1938 W. 8th St., Cincinnati, Ohio.
Standard Oil Co. of New York, The, 26 Broadway, New York, N. Y.
Standard Packing & Rubber Co., 125 Church St., New York, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Standard Shop Equipment Co., 82nd & Tinicum Ave., Philadelphia, Pa.
Standard Steel Specialty Co., P. O. Box 546, Beaver Falls, Pa.
Standard Thermometer, Inc., 65 Shirley St., Boston 19, Mass.
Standard Tool Co., 6919 Central Ave., Cleveland, Ohio.
Standard Union Co., Lockport, N. Y.
Stanley Belting Corp., 15 N. Jefferson St., Chicago, Ill.
Stanley Electric Tool Co., Inc., The, 111 Elm St., New Britain, Conn.
Stanley Rule & Level Plant, The, 111 Elm St., New Britain, Conn.
Stanley Works, The, 195 Lake St., New Britain, Conn.
Star Bit & Tool Co., 10th St. & 10th Ave., Rockford, Ill.
Star Sanitary Rag Co., 2235 Ford Ave., Chicago, Ill.
Starline, Inc., 300 W. Front St., Harvard, Ill.
Starrett, L. S., Co., The, Athol, Mass.
Steel and Tubes, Inc., 224 E. 131st St., Cleveland, Ohio.
Steelcote Mfg. Co., 3418 Gratiot Ave., St. Louis, Mo.
Stempel Fire Extinguisher Manufacturing Co., 20th & Ferry Sts., St. Louis, Mo.
Stephens-Adamson Mfg. Co., 121 Ridgeway Ave., Aurora, Ill.
Stephenson Mfg. Co., 2nd Ave. & Beekman St., Albany, N. Y.
Sterling Grinding Wheel Co., The, Abrasive Division of The Cleveland Quarries Co., Broad Ave., Tiffin, Ohio.
Sterling Products Co., 314-320 Curtis Bldg., Detroit, Mich.
Sterling Siren Fire Alarm Co., Inc., 56 Allen St., Rochester, N. Y.
Sterling Wheelbarrow Co., 7036 W. Walker St., Milwaukee, Wis.
Stevens Walden, Inc., 475 Shrewsbury St., Worcester, Mass.
Stimmel Winch Co., 37-24 22nd St., Long Island City, N. Y.
Stockham Pipe & Fittings Co., 4100 10th Ave., N., Birmingham, Ala.
Stow Flexible Shaft Co., 3623-25 Brandywine St., Philadelphia, Pa.
Stow, H. J. (Successor to Kenehan Steel Belt Fastener Co.), 163 W. Washington St., Chicago, Ill.
Stow Manufacturing Co., Inc., 443 State St., Binghamton, N. Y.
Strand, N. A., & Co., 5001 N. Lincoln St., Chicago, Ill.
Strauss & Buegeleisen, 30 Front St., Brooklyn, N. Y.
Streeter-Amet Co., 4101 Ravenswood Ave., Chicago, Ill.
Streich, A., & Bro., Co., Oshkosh, Wis.
Strickler, W. W., & Brothers, 538 E. Rich St., Columbus, Ohio.

Strock, L. W., & Co., Bethlehem, Pa.
Strong, Carlisle & Hammond Co., The. 1392-1394 W. 3rd St., Cleveland, Ohio.
Stuart, D. A., Oil Co., 2727-2753 S. Troy St., Chicago, Ill.
Stulz-Sickles Co., 134 Lafayette St., Newark, N. J.
Sturtevant, B. F., Co., Damon St., Hyde Park, Boston, Mass.
Sullivan Brush Co., First St. & Wabash Ave., Terre Haute, Ind.
Sumet Co., 1543 Fillmore Ave., Buffalo, N. Y.
Sunnen Products Co., 7900 Manchester Ave., St. Louis, Mo.
Sun Oil Co., 1608 Walnut St., Philadelphia, Pa.
Sundstrand Machine Tool Co., 2531 11th St., Rockford, Ill.
Superior Flake Graphite Co., 33 S. Clark St., Chicago, Ill.
Superior Screw & Bolt Co., 3401 Martin Ave., Cleveland, Ohio.
Sutorbilt Corp., 2008 E. Slauson Ave., Los Angeles, Calif.
Sutton, C. N., Chemical Co., 4515 Ravenswood Ave., Chicago, Ill.
Sutton Tool Co., 2842 W. Grand Blvd., Detroit, Mich.
Swaby Mfg. Co., 2010 Marshall Blvd., Chicago, Ill.
Swartwout Co., The, 18511 Euclid Ave., Cleveland, Ohio.
Swayne-Robinson & Co., 225 Main St., Richmond, Ind.
Swett, Frank W., & Son, 1716-18 W. Adams St., Chicago, Ill.
Sweetland Waste Co., Inc., Jackson St., Canton, Mass.
Swift Lubricator Co., 729 W. 2nd St., Elmira, N. Y.
Syntron Co., 400 Lexington Ave., Pittsburgh, Pa.
Syracuse Steam Generator, Inc., South Ave. & Grant Pl., Syracuse, N. Y.

T

Taber Pump Co., 279 Elm St., Buffalo, N. Y.
Taft-Peirce Mfg. Co., 32 Mechanics Ave., Woonsocket, R. I.
Tagliabue, C. J., Mfg. Co., Park & Nostrand Ave., Brooklyn, N. Y.
Tallman Manufacturing Co., S. Lodge St., Shelbyville, Ill.
Tally-Meter Co., 17 Elmwood Ave., Norwich, Conn.
Taylor Belting Co., The, 247 S. Meridian St., Indianapolis, Ind.
Taylor Forge & Pipe Works, Box 485, Chicago, Ill.
Taylor Instrument Companies, 95 Ames St., Rochester, N. Y.
Taylor, Jas. L., Mfg. Co., Poughkeepsie, N. Y.
Taylor, S. G., Chain Co., P. O. Box 1297, Hammond, Ind.
Taylor, Stiles & Co., Riegelsville, N. J.
Technical Products Co., 2308 Main St., Pittsburgh, Pa.
Templeton, Kenly & Co., 1020 S. Central Ave., Chicago, Ill.
Tessmer Machine & Tool Co., 1425-1445 Rivard St., Detroit, Mich.
Thermoid Rubber Co., Whitehead Rd., Trenton, N. J.
Thomas, Seth, Clock Co., Thomaston, Conn.
Thompson, Henry G., & Son Co., The, 227 Chapel St., New Haven, Conn.
Thurston Mfg. Co., 45 Borden St., Providence, R. I.
Thwing Instrument Co., 3339 Lancaster Ave., Philadelphia, Pa.
Tilghman, T. H., & Sons, 300 Commerce St., Salisbury, Md.
Tillery's, Little Janitor Clock Co., 55 Orchard St., Newark, N. J.
Timken Roller Bearing Co., The, Canton, O.
Titeflex Metal Hose Co., 500 Frelinghuysen Ave., Newark, N. J.
Tnemec Co., Inc., 3122 Roanoke Rd., Kansas City, Mo.
Toledo Belting Co., The, 1312 Adams St., Toledo, Ohio.
Toledo Pipe Threading Machine Co., The, 1445 Summit St., Toledo, Ohio.
Toledo Pressed Steel Co., The, 397 Phillips Ave., Toledo, Ohio.
Toledo Scale Co., Albion & Monroe Sts., Toledo, Ohio.
Toledo Steel Tube Co., The, 2115 Smead Ave., Toledo, Ohio.
Toledo Wheelbarrow Co., Broadway & Wabash R. R., Toledo, Ohio.
Toles, W. C., Co., 515 W. Judd St., Woodstock, Ill.
Ton-Tex Corporation, 247 Pearl St., Grand Rapids, Mich.
Torchweld Equipment Co., 1035 W. Lake St., Chicago, Ill.
Torit Mfg. Co., 174 W. Third St., St. Paul, Minn.
Torrey Roller Bushing Works, 36 Commercial St., Bath, Me.
Torrington Brush Works, 104 Calhoun St., Torrington, Conn.
Torrington Mfg. Co., Franklin St., Torrington, Conn.
Tower Mfg. Co., Madison, Ind.
Towsley, John T., Mfg. Co., The, Cincinnati, Ohio.
Tranter Mfg. Co., 105 Water St., Pittsburgh, Pa.
Trent, Harold E., Co., 618-640 N. 54th St., Philadelphia, Pa.
Trerice, H. O., Co., 1420 Lafayette Blvd., Detroit, Mich.
Trico Fuse Mfg. Co., 2948 N. Fifth St., Milwaukee, Wis.
Trill Indicator Co., 38 E. South St., Corry, Pa.
Trimont Mfg. Co., 55-71 Amory St., Roxbury, Boston, Mass.
Troy Engine & Machine Co., Troy, Pa.
Truscon Steel Co., Youngstown, Ohio.
Tryco Products, Inc., Railroad Sq., Westfield, Mass.
Tube-Turns, Inc., 1303 S. Shelby St., Louisville, Ky.
Tuck Mfg. Co., 74 Ames St., Brockton, Mass.
Turner Brass Works, The, 800-810 Park Ave., Sycamore, Ill.
Turner, Day and Woolworth Handle Co., 1215 S. 7th St., Louisville, Ky.
Tuthill Pump Co., 131 W. 63rd St., Chicago, Ill.
Twin Disc Clutch Co., 1328 Racine St., Racine, Wis.
Tyson Roller Bearing Corp., Oberlin Rd., S. W., Massillon, Ohio.

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Uehling Instrument Co., 473 Getty Ave., Paterson, N. J.
Uniflow Mfg. Co., East Lake Rd., Erie, Pa.
Union Diesel Engine Co., Kennedy & E. 7th Sts., Oakland, Calif.
Union Drawn Steel Co., 401 7th Ave., Beaver Falls, Pa.
Union Fibre Sales Co., Winona, Minn.
Union Mfg. Co., 296 Main St., New Britain, Conn.
Union Steam Pump Co., Battle Creek, Mich.
Union Twist Drill Co., Athol, Mass.
Unique Manufacturing Co., 221 W. Whiting St., Chicago, Ill.
United American Bosch Corp., 3664 Main St., Springfield, Mass.
United American Metals Corp., 200 Diamond St., Brooklyn, N. Y.
United Machinery Co., 39 S. E. Salmon St., Portland, Ore.
United Screw and Bolt Corp., 3300 W. 58th St., Cleveland, Ohio.
United States Air Compressor Co., 5300 Harvard Ave., Cleveland, Ohio.
United States Asbestos Division of Raybestos-Manhattan, Inc., Manheim, Pa.
U. S. Electrical Mfg. Co., 200 E. Slauson Ave., Los Angeles, Calif.
United States Electrical Tool Co., The, 2479 W. 6th St., Cincinnati, Ohio.
U. S. Expansion Bolt Co., 75 Varick St., New York, N. Y.
U. S. Gutta Percha Paint Co., 12 Dudley St., Providence, R. I.
U. S. Hame Co., 135 Tonawanda St., Buffalo, N. Y.
U. S. Indestructible Gasket Co., 829 E. 15th St., Brooklyn, N. Y.
United States Machine Co., 720 W. 3rd St., Williamsport, Pa.
U. S. Mineral Wool Co., 280 Madison Ave., New York, N. Y.
U. S. Reamer & Tool Corp., 3191 Casitas Ave., Los Angeles, Calif.
United Superior Union Co., Inc., 29 Ryerson St., Brooklyn, N. Y.
Upson Nut Division of Republic Steel Corp., Cleveland, Ohio.
Upson-Walton Co., The, 1294-1310 W. 11th St., Cleveland, Ohio.
Up-to-Date Machine Works, Inc., 2915 S. Wabash Ave., Chicago, Ill.

V

Van Dorn Electric Tool Co., The, Towson, Md.
Van Norman Machine Tool Co., 160 Wilbraham Ave., Springfield, Mass.
Vaughan & Bushnell Mfg. Co., 2114 Carroll Ave., Chicago, Ill.
Veeder-Root, Inc., Garden & Sargeant Sts., Hartford, Conn.
Vellumoid Co., The, 54 Rockdale St., Worcester, Mass.
Victor Balata & Textile Belting Co., 53 Park Place, New York, N. Y.
Victor Instrument Mfg. Co., Inc., 47-49 W. 63rd St., New York, N. Y.
Victor Lubricator Co., 360 N. Michigan Ave., Chicago, Ill.
Victor Mfg. & Gasket Co., 5750 Roosevelt Rd., Chicago, Ill.
Victor Saw Works, Inc., 22 Cottage St., Middletown, N. Y.
Victor Welding Equipment Co. (Division of Victor Equipment Co.), 844 Folsom St., San Francisco, Calif.
Vincent Steel Process Co., 2434 Bellevue Ave., Detroit, Mich.
Viking Pump Co., 406 State St., Cedar Falls, Iowa.
Vitrified Wheel Co., Emery St., Westfield, Mass.
Vichek Tool Co., The, 3000 E. 87th St., Cleveland, Ohio.
Vogt Brothers Mfg. Co., 1402 W. Main St., Louisville, Ky.
Vogt, Henry, Machine Co., 10th & Ormsby Sts., Louisville, Ky.
Von Hoffman Press, Ninth & Walnut Sts., St. Louis, Mo.
Vortex Manufacturing Co., The, 1978 W. 77th St., Cleveland, Ohio.
Vulcan Electric Heater Corp., 600 Broad St., Lynn, Mass.
Vulcan Tool Mfg. Co., 41 Liberty St., Quincy, Mass.
Vulcan Wheels, Inc., Ave. L and Thornton St., Newark, N. J.

W

Wagner Electric Corp., 6400 Plymouth Ave., St. Louis, Mo.
Walker-Turner Co., Inc., 639 Berckman St., Plainfield, N. J.
Wall, P., Mfg. Supply Co., 3126 Preble Ave., Pittsburgh, Pa.
Wallace, J. D., & Co., 2801 Wilcox St., Chicago, Ill.
Wall Sales Corp., 96 Warren St., New York, N. Y.
Walters Manufacturing Co., 138 Pennsylvania Ave., Oakmont, Pa.
Walworth Co., 60 E. 42nd St., New York, N. Y.
Wappat, Inc., 7521 Meade St., Pittsburgh, Pa.
Warner & Swasey Co., The, 5701 Carnegie Ave., Cleveland, Ohio.
Warner, W. E., & Co., 265 Canal St., New York, N. Y.
Warnock Manufacturing Co., 54 Commercial St., Worcester, Mass.
Warren Handle Works Co., Pearl St., Cortland, Ohio.
Washburn Co., The, 28 Union St., Worcester, Mass.
Wasmer Bolt & Nut Co., The, 13000 Athens Ave., Cleveland, Ohio.
Watson & McDaniel Co., Marshall & Noble Sts., Philadelphia, Pa.
Watson-Stillman Co., The, 113 Aldene Rd., Roselle, N. J.
Watt's, John M., Sons, 120 Walnut St., Philadelphia, Pa.
Watts Regulator Co., 250 Lowell St., Lawrence, Mass.
Wausau Abrasives Co., Division, Minnesota Mining & Manufacturing Co., Forest & Fauquier Sts., St. Paul, Minn.
Wave Cut File & Tool Corp., 303 4th Ave., New York, N. Y.
Waynesboro Nipple Works, Inc., Waynesboro, Pa.
Webb, J. A., Belting Co., Inc., 45 Pearl St., Buffalo, N. Y.
Webster Mfg. Co., 1806 N. Kostner Ave., Chicago, Ill.
Weil Pump Co., 215 W. Superior St., Chicago, Ill.
Weldit Acetylene Co., 638 Bagley Ave., Detroit, Mich.
Weller Mfg. Co., 1806 N. Kostner Ave., Chicago, Ill.
Wells, A. H., & Co., Inc., Watertown Ave., Waterbury, Conn.
Wells Manufacturing Corp., 315 Seventh Ave., Three Rivers, Mich.
West Bend Equipment Corp., West Bend, Wis.
Westco Pump Corp., Davenport, Iowa.
Westcott Chuck Co., 312 E. Walnut St., Oneida, N. Y.
Western Engineering & Mfg. Co., 2614 Irving Pk. Blvd., Chicago, Ill.
Western Hdwe. Mfg. Co., 2428 No. Third St., Milwaukee, Wis.
Western Nipple Manufacturing Co., 875-877 Folsom St., San Francisco, Calif.
Western Packing & Supply Co., 517 S. Jefferson St., Chicago, Ill.
Western Products, Inc., New Castle, Ind.
Western Rawhide & Belting Co., 131-139 E. Washington St., Milwaukee, Wis.
Western Wire Products Co., 1415-35 South 18th St., St. Louis, Mo.
Wheeling Corrugating Co., Wheeling Steel Corporation Bldg., Wheeling, W. Va.
Wheeling Machine Products Co., Wheeling, W. Va.
Wheeling Steel Corp., Wheeling Steel Corporation Bldg., Wheeling, W. Va.
Whitehead Bros. Rubber Co., Whitehead Rd., Trenton, N. J.
White, S. S., Mfg. Co., New York, N. Y.
Whiting Leather & Belting Co., 30-30 Northern Blvd., Long Island City, N. Y.
Whitlam, J. C., Mfg. Co., Wadsworth, Ohio.
Whitman and Barnes, Inc., 2108 W. Fort St., Detroit, Mich.
Whitney Mfg. Co., The, Hamilton St., Hartford, Conn.
Whitney Metal Tool Co., 110 Forbes St., Rockford, Ill.
Whitney, W. A., Mfg. Co., 636 Race St., Rockford, Ill.

Wickwire Brothers, 189 Main St., Cortland, N. Y.
Wickwire Spencer Steel Co., 41 E. 42nd St., New York, N. Y.
Wilbur & Williams Co., 31 St. James Ave., Boston, Mass.
Williams, D. T., Valve Co., The, Spring Grove Ave. & Township St., Cincinnati, Ohio.
Williams, E. A., & Son, Inc., 107 Plymouth St., Jersey City, N. J.
Williams, Franklin, Inc., 451 S. Jefferson St., Orange, N. J.
Williams Gauge Co., The, 1620 Pennsylvania Ave., N. S., Pittsburgh, Pa.
Williams, I. B., & Sons, 9 Orchard St., Dover, N. H.
Williams, J. H., & Co., 75 Spring St., New York, N. Y.
Williams, William E., Valve Corp., 62 Front St., New York, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa.
Wills Products Co., The, 250 W. 57th St., New York, N. Y.
Willson Products, Inc., P. O. Box 901, Reading, Pa.
Wil-X-Mfg. Corp., 29 Ryerson St., Brooklyn, N. Y.
Wing, J. T., & Co., 300 Bates St., Detroit, Mich.
Winter Brothers Co., Inc., Kendrick St., Wrentham, Mass.
Winterhoff Tool & Machine Co., 108 S. Elkhart Ave., Elkhart, Ind.
Wiping Materials, Inc., 2028 N. Main St., St. Louis, Mo.
Wire Rope Lubricating Co., P. O. Box 699, Trenton, N. J.
Wirt & Knox Mfg. Co., 23rd & York Sts., Philadelphia, Pa.
Wisconsin Waste & Wiper Co., 802 W. Windlake Ave., Milwaukee, Wis.
Wiss, J., & Sons Co., 33 Littleton Ave., Newark, N. J.
Witt Cornice Co., The, 2118 Winchell Ave., Cincinnati, Ohio.
Wittek Mfg. Co., 4305 W. 24th St., Chicago.
Wodack Electric Tool Corp., 4627 W. Huron St., Chicago, Ill.
Wolverine Tube Co., 1451 Central Ave., Detroit, Mich.
A. A. Wood & Sons Co., P. O. Box 937, Haynes & Magnolia Sts., Atlanta, Ga.
Wood, H. C., Machine Works, 514 Bryant St, San Francisco, Calif.
Wood's, T. B., Sons Co., 5th Ave., Chambersburg, Pa.
Wood, R. E., Iron & Steel, 315-316 Crozer Bldg., Chester, Pa.
Wood Shovel & Tool Co., Roosevelt & Clarke Ave., Piqua, Ohio.
Worcester Brush & Scraper Co., Div. Mason-Worcester Co., 38 Austin St., Worcester, Mass.
Worcester Taper Pin Co., Worcester, Mass.
Worthington Pump and Machinery Corp., Harrison, N. J.
Wright-Austin Co., 315 W. Woodbridge St., Detroit, Mich.
Wright Manufacturing Co., E. Princess and Charles Sts., York, Pa.
Wrought Washer Mfg. Co., 2100 S. Bay St., Milwaukee, Wis.

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Yale & Towne Mfg. Co., The, (Philadelphia Division), 4530 Tacony St., Philadelphia, Pa.
Yale & Towne Mfg. Co., Stamford, Conn.
Yarnall-Waring Co., 102 E. Mermaid Lane, Chestnut Hill, Philadelphia, Pa.
Yeomans Brothers Co., 1433 Dayton St., Chicago, Ill.
Yost Manufacturing Co., S Main St., Meadville, Pa.
Youngstown Sheet and Tube Co., Stambaugh Bldg., Youngstown, Ohio.

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CODE OF FAIR COMPETITION

FOR THE

INDUSTRIAL SUPPLIES AND MACHINERY DISTRIBUTORS' TRADE

As approved October 23, 1933 and amended October 2, 1934

The complete code, with amendments set in bold-face type, is produced here to meet a demand from distributors for a ready reference. Requests for copies of the November, 1933 issue, which carried the original code of this industry, have far exceeded the supply.

ARTICLE I.

Purposes

To effectuate the policies of Title I of the National Industrial Recovery Act, the following provisions are submitted as a Code of Fair Competition for the Industrial Supplies and Machinery Distributors' Trade, and upon approval by the President, shall be the standard of fair competition for this trade.

ARTICLE II.

Definitions

Section 1. The term "Industrial Supplies and Machinery Distributors' Trade," or "trade," as used herein, includes the warehousing, selling, distributing and/or servicing in conjunction therewith of tools, equipment and supplies for railroads, ships, boats, mines, mills, factories and/or other industrial users.

Section 2. A Distributor of Industrial Supplies and Machinery shall be defined as one who sells to industrial consumers and other trade outlets; and who has at least the following facilities and services:

(a) An adequate investment.

(b) Storage space sufficient to carry the stock required in Paragraph (e) herein and necessary facilities for operating same.

(c) A proper accounting system, sales, office and delivery service.

(d) Regularly maintains salesmen in his territory to demonstrate and sell the lines handled.

(e) Carries a sufficiently complete purchased stock of industrial tools, equipment and supplies to meet normal requirements in his territory.

(f) Assumes the credit risk of his sales.

Nothing in this Section 2, Article II, however, shall be construed to exclude in any way as a member of the trade and/or from the operation of this Code, anyone who sells tools, equipment and supplies to the industrial users described in Section 1, Article II hereof except with the approval of such exclusion by the Administrator.

Section 3. The term "employee" as used herein includes any person engaged in any phase of the trade in any capacity in the nature of employee, irrespective of the method of payment of his compensation.

Section 4. The term "employer" as used herein includes anyone for whose benefit such an employee is so engaged.

Section 5. The term "member of the trade" as used herein includes any employer who shall be subject to this Code.

Section 6. The term "member of the Code" as used herein includes any member of the trade who shall expressly signify assent to this Code.

Section 7. The term "effective date" as used herein means the tenth day after this Code shall have been approved by the President of the United States.

Section 8. The term "learner" as used herein is a person having no previous experience in the trade, and whose employment as such shall not exceed 6 months.

Section 9. The term "act" as used herein is Title I of the National Industrial Recovery Act.

Section 10. The term "Administrator" as used herein is the National Recovery Administrator.

Section 11. Population for the purposes of this Code shall be determined by reference to the 1930 Federal Census.

ARTICLE III.

Hours

On and after effective date of this Code

Section 1. No employee in the Trade, except as hereinafter provided, shall be employed for more than eight (8) hours in any one day nor for more than forty (40) hours in any one week, nor for more than six (6) days in any one week, provided, however, that during inventory and other peak periods, such employees may be permitted to work not more than forty-eight (48) hours in any one week, or not more than three (3) weeks in any six (6) months' period; provided, further, that the average shall not be more than forty (40) hours per week in any six (6) months' period.

Section 2. The limitation of Section 1 of this Article III as to hours of work shall not apply to persons in a managerial, executive or supervisory capacity, who now receive more than $35.00 per week, or to watchmen and outside salesmen.

Section 3. The limitation of Section 1 of this Article III as to hours of work shall not apply to persons engaged in outside delivery service, plant maintenance, outside repair and/or installation service, nor to persons engaged in stock receiving and shipping service, who shall be permitted to work not more than forty-eight (48) hours in any one week,

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provided time and one-third is paid for all hours worked in excess of forty (40) hours per week.

Section 4. No person under the age of sixteen (16) years shall be employed by any member of the Trade, and no person under the age of eighteen (18) years shall be employed in any hazardous occupation.

Section 5. The total number of hours which shall be worked by any employee whether with one or more employers, shall not exceed the maximum as prescribed herein.

ARTICLE IV.

Wages

On and after effective date of this Code

Section 1. The minimum rates of pay except as prescribed in Section 2 of this Article IV shall be as follows in cities of the population listed below and their immediate trade areas:

Over 500,000 population not less than $15.00 per week.

250,000 to 500,000 population not less than $14.50 per week.

2,500 to 250,000 population not less than $14.00 per week.

In towns of less than 2,500 population, all wages of such employees shall be increased by not less than 20%, provided that this shall not require wages in excess of $12.00 per week.

Section 2. No part time or casual employee shall be paid at a rate per hour less than the minimum rates prescribed in Section 1 of this Article IV, which minimum rates are based on a forty (40) hour week, applying to the area in which the employer is located.

Section 3. Learners may be paid at the rate of $2.00 less per week than the minimum rates prescribed in Section 1 of this Article IV, provided that in no case shall the minimum be less than $12.00 per week.

Section 4. Junior employees between the ages of sixteen (16) and eighteen (18) inclusive, with less than six (6) months' experience in the trade, may be paid at the rate of $2.00 less per week than the minimum rates prescribed in Section 1 of this Article IV, provided that in no case shall the minimum be less than $10.00 per week.

Section 5. Such learners and junior employees mentioned in Sections 3 and 4 of this Article IV employed by any one employer shall not exceed in number more than five (5) per cent of the total number of employees of such employer, provided that each employer may have at least one learner or junior employee.

Section 6. No employee now receiving compensation at a rate in excess of the minimum herein prescribed shall have his compensation reduced on account of any reduction in the weekly hours of employment to conform with the requirements of Article III.

Section 7. The hourly wage rate or salary of all employees receiving more than the minimum rate or salary herein prescribed, shall be equitably adjusted, if such adjustments have not already been made.

Section 8. No distinction in rates shall be made between male and female employees, where the same class of work is performed, regardless of whether compensation is calculated on an hourly, weekly or monthly basis.

Section 9. No employee shall be included in one of the classifications excepted from the provisions of this Code unless the identical functions were identically classified on June 16, 1933.

Section 10. No person who has worked as a learner for one member of the trade for the period of time prescribed under the term "learner" in Article II, may be thereafter be classified as a learner.

Section 11. No employer shall reduce the compensation for employment now in excess of the minimum wages herein prescribed, notwithstanding that the hours worked in such employment may be hereby reduced.

Section 12. The provisions for a minimum wage in this Code establish a guaranteed rate of pay per hour or per week of employment, regardless of whether the employees' compensation is calculated on an hourly, weekly or monthly basis.

ARTICLE V.

Administration

Section 1. To further effectuate the policies of the Act, a Code Authority is hereby set up to co-operate with the Administrator in the administration of this Code.

(a) The Code Authority shall consist of eight members of the trade (no two of whom shall represent the same member) and one or more appointees of the Administrator if he so desires. The latter shall have no vote. The members of the Code Authority shall be elected by the members of the trade, each member of the trade to have only one vote. Such election shall be by mail ballots which ballots shall be sent to all members of the trade. The Code Authority shall complete its own organization by election of officers.

Section 2. It being found necessary in order to support the administration of this Code and to maintain the standards of fair competition established hereunder and to effectuate the policy of the Act, the Code Authority is authorized:

(a) To incur such reasonable obligations as are necessary and proper for the foregoing purposes, and to meet such obligations out of funds which may be raised as hereinafter provided and which shall be held in trust for the purposes of the Code;

(b) To submit to the Administrator for his approval, subject to such notice and opportunity to be heard as he may deem necessary (1) an itemized budget of its estimated expenses for the foregoing purposes, and (2) an equitable basis upon which the funds necessary to support such budget shall be contributed by members of the Trade;

(c) After such budget and basis of contribution have been approved by the Administrator, to determine and obtain equitable contribution as above set forth by all members of the Trade, and to that end, if necessary, to institute legal proceedings therefor in its own name.

Section 3. Each member of the Trade shall pay his or its equitable contribution to the expenses of the maintenance of the Code Authority, determined as hereinabove provided and subject to rules and regulations pertaining thereto issued by the Administrator. Only members of the Trade complying with the Code and contributing to the expenses of its administration as hereinabove provided, unless duly exempted from making such contributions, shall be entitled to participate in the selection of members of the Code Authority or to receive the benefits of any of its voluntary activities or to make use of any emblem or insignia of the National Recovery Administration.

Section 4. The Code Authority shall neither incur nor pay any obligation substantially in excess of the amount thereof as estimated in its approved budget, and shall in no event exceed the total amount contained in the approved budget, except upon approval of the Administrator; and no subsequent budget shall contain any deficiency item for expenditures in excess of prior budget estimates except those which the Administrator shall have so approved.

Section 5. The Code Authority shall have the following duties and powers to the extent permitted by the Act and subject to review by the Administrator.

(a) To collect from persons in the trade all data, reprints and statistics when and as required by the President and by the Administrator and/or their agent or agents. Such information shall be confidential. Each member shall send his data to a neutral agency designated by the Code Authority. This neutral agency shall assemble all such data and present it to the Code Authority without the names of members of the trade submitting such data. This data with names shall be available to the Administrator if required by him. Reports submitted by the Code Authority to the President and/or the Administrator and/or his or their agent or agents shall be in the form prescribed and/or approved by him. Nothing in this paragraph shall be construed as limiting the powers conferred on the President and/or the Administrator by Title I of the Act.

(b) In addition to information required to be submitted to the Code Authority, there shall be furnished to Government agencies such statistical information as the Administrator may deem necessary for the purpose recited in Section (3) (a) of the National Industrial Recovery Act.

(c) To represent the trade in conferring with the President or his agents with respect to the administration of this Code and in respect of the Act and any regulation issued thereunder.

(d) To arrange for a Regional Committee in each territorial area to assist the Code Authority in administering the code. Each such Regional Committee shall consist of not more than three (3) members of the trade in such area, elected by the members of the trade in such area.

(e) To appoint such agents as it may deem necessary to assist in administering this Code.

(f) To hear and investigate complaints and attempt to adjust the same in accordance with law.

(g) To study the trade practice provisions of Article VI and the operation thereof, and make such recommendations from time to time to the Administrator as it deems desirable for modification of or addition thereto, which, upon the approval of the President, after such hearing as he may prescribe, shall become a part of this Code and have full force and effect as provisions hereof.

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(h) To make rules and regulations necessary for the administration of this Code, subject to the approval of the Administrator.

(i) To report to the Administrator on behalf of the trade on the subject of imported articles competing with products distributed by the trade under provisions of Section 3 (a) of the Act.

ARTICLE VI.

Unfair Competition

The following practices are hereby declared to be unfair methods of competition within the meaning of the Act:

Section 1. Sales below the individuals' cost. Cost is to be determined by a standard cost accounting system to be set up by the Code Authority and subject to the approval of the Administrator. It is expressly understood that this shall not apply to items on which the published or suggested prices of manufacturers do not provide a margin sufficient to cover the individuals' cost as determined by the above mentioned standard cost accounting system.

Section 2. Where in any particular territory, members of the trade desire to file price lists with such agency as may be approved by the Code Authority, it is violation of the Code for such members to sell below their individually filed schedules covering prices, terms and conditions. Such schedules are to be subject to change at any time by filing a new schedule, which shall be effective five (5) days after filing.

Section 3. The payment or allowance of secret rebates, refunds, discounts, commissions or other special considerations or allowances, including donations, gifts or premiums of any nature whatsoever to any firm or individual.

Section 4. The issuance of false invoices or other documents covering sales in which the prices, terms, discounts, allowances or other facts relating to the transaction are in any manner falsely stated.

Section 5. Discrimination in prices between purchasers of the same class under similar conditions except for differences in the grade, quality or quantity purchased.

Section 6. Delivering merchandise which fails to conform exactly to the samples or specifications on which prices are quoted.

Section 7. Agreeing to conditions or terms of sale, or making promises of any nature which manifestly cannot be fulfilled.

Section 8. Accepting orders for future delivery subject to cancellation.

Section 9. Inducing or attempting to induce the cancellation of orders or the breach of contracts existing between competitors and their customers.

Section 10. Misrepresentation of facts about a competitor or his product.

Section 11. Quoting a total price on any schedule of industrial supplies and machinery which does not show unit prices and making any addition or deduction on any other basis than the unit price shown.

Section 12. It is an uneconomical and an unfair practice for distributors to ship any goods on consignment, except products of manufacturers whose general plan of distribution is by consignment and not by sales for resale.

Section 13. When a member of the Trade desires to dispose of obsolete, closeout, or discontinued items, and to offer such merchandise for sale at prices less than his customary prices, he shall file with the Regional Committee in the area in which he is located, a statement showing the quantity, sizes and complete description of the merchandise so offered for sale, and the reasons for such sale. On such sales, all invoices for merchandise so sold shall plainly display the following words, "Special Closeout Prices." Failure to obesrve this rule or increasing such stock during liquidation at the special prices is an unfair method of competition. Any distributor finding himself in this position shall first offer the surplus of merchandise to the manufacturer thereof, and failing to dispose of such merchandise by this method shall offer same to the members of the Trade in the regional group.

Section 14. The issuing of credit or making of cash settlement beyond the recoverable value of any goods accepted by any member of the Trade in exchange for or as part payment for any products of the Trade.

ARTICLE VII.

Scope of Code

In the absence of any contrary provision herein concerning such trade practice, each member of the trade shall in dealing with a product manufactured by a member of an industry operating under another Code of Fair Competition, conduct such dealing in conformity with any pertinent trade practice provisions in such other Code.

ARTICLE VIII.

General

Section 1. Employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection.

Section 2. No employee and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing or assisting a labor organization of his own choosing: and

Section 3. Employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment approved or prescribed by the President.

Section 4. This Code and all the provisions thereof are expressly made subject to the right of the President, in accordance with the provision of subsection (b) of Section 10 of the National Industrial Recovery Act, from time to time to cancel or modify any order, approval, license, rule or regulation issued under Title I of said Act, and specifically but without limitation, to the right of the President to cancel or modify his approval of this Code or any conditions imposed by him upon his approval thereof.

Section 5. Within each State, members of the trade shall comply with any laws of such State imposing more stringent requirements, regulating the age of employees, wages, hours of work or health, fire or general working conditions, than under this Code.

Section 6. If any employer in this trade is also an employer in any other trade or industry the provisions of this Code shall apply and affect only that part of the business of such employer which is a part of the trade covered by this Code.

Section 7. Where the costs of executing contracts entered into this trade are increased as a result of the enactment of the National Industrial Recovery Act and/or by the provisions of this Code, or where any contract entered into by an employer subject to this Code, is inconsistent with the provisions thereof, it is equitable and promotive of the purposes of the Act that appropriate adjustments of such contracts be arrived at by arbitral proceedings or otherwise and the Code Authority is constituted an agency to assist, with the consent of the buyer, in affecting such adjustments. Further, that where the performance of orders accepted prior to the effective date of this Code is delayed or prolonged as a result of the operation of provisions of this Code, appropriate additional time should be allowed for the completion of such orders.

Section 8. Such of the provisions of this Code as are not required to be included therein by the National Industrial Recovery Act may, with approval of the President, be modified or eliminated as changes in the circumstances or experience may indicate. It is contemplated that from time to time supplementary provisions to this Code or additional codes will be submitted for the approval of the President to prevent unfair competition in price and other unfair and destructive competitive practices, and to effectuate the other purposes and policies of Title I of the National Industrial Recovery Act consistent with the provision thereof.

Section 9. Prior to December 31, 1933, no member of the trade shall increase the sale price of his goods sold after the effective date hereof over the price on July 1, 1933, by more than is made necessary by actual increases in manufacturing, distribution and material costs, or by taxes or other costs resulting from action taken pursuant to the Agricultural Adjustment Act and/or this Code since July 1, 1933, and in setting such price increases, full weight shall be given to probable increases in sales volume. In case a member of the trade on July 1, 1933, was selling his product at less than actual cost, he may take his cost price on that date as the base for such increase in selling price as is permitted by this section.

Section 10. No provision in this Code shall be interpreted or applied in such a manner as to

(a) Promote monopolies or monopolistic practices
(b) Permit or encourage unfair competition
(c) Eliminate or oppress small enterprise, or
(d) Discriminate against small enterprise.

ARTICLE IX.

This Code shall be in effect beginning on the tenth day after its approval by the President and shall be binding upon all persons engaged in the trade.

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These distributors can tell you about Keystone Products and Policies

Ask any Distributor of Keystone Specialized Lubricants for the facts—and this is what you'll hear about the Keystone line:

It's complete. **There is a Keystone Lubricant especially engineered to cut the operating costs and prolong the life of every piece of equipment in every industry.**

It's the highest quality obtainable. **Fifty years' experience are behind the quality and uniformity of every Keystone Lubricant.**

It's produced by lubrication engineers. **Keystone Engineering Service starts with the construction of the lubricants and does not end until they are scientifically applied to your customers' equipment.**

It's cleanly sold and distributed. **All sales are made through Keystone Industrial Distributors, with the full co-operation of Keystone Lubrication Engineers.**

It's backed to the limit by sales helps. **The co-operation of The Keystone Lubricating Company includes advertising, sales-helps of all kinds, and aid in developing sales-methods adapted to each Distributor's problems.**

READ WHAT DISTRIBUTORS SAY . . .

The Galigher Company, Salt Lake City, Utah: "Keystone is one of our leading lines . . . we concentrate on it in every way possible."

Somers, Fitler & Todd Company, Pittsburgh, Pa.: "Keystone Lubricants are one of our fastest selling lines."

Geller, Ward & Hasner Hardware Co., St. Louis: "We consider Keystone our major line . . . it is a pleasure to sell it."

Samuel Harris & Co., Chicago: "We sell Keystone Lubricants to some of the largest industries in the Middle West."

Mr. C. Carter Bond, Managing Director, The Charles Bond Company, Philadelphia, Pa.: "Performance sold me on Keystone Specialized Lubricants."

Smith-Courtney Co., Richmond, Va.: "We take pride in being Keystone Distributors, and having so worthy a product to offer our friends."

The Keystone Distributor in your locality will gladly co-operate with you in making Keystone Lubrication Service available to your customers.

THE KEYSTONE LUBRICATING COMPANY
21st, Clearfield and Lippincott Sts., Philadelphia

ESTABLISHED 1884

KEYSTONE
SPECIALIZED LUBRICANTS

THE KEYSTONE DISTRIBUTORS OF AMERICA

Ala.,	*Birmingham,* Moore-Handley Hdwe. Co.
	Mobile, Marine Specialty Co.
Calif.,	*Los Angeles,* Robert M. Hartwell Co.
	San Francisco, Marshall-Newell Supply Co.
Colo.,	*Denver,* M. L. Foss, Inc.
Conn.,	*New Haven,* The C. S. Mersick & Co.
Del.,	*Wilmington,* Hudson Supply Co.
Fla.,	*Jacksonville,* Georgia Supply Co.
	Tampa, The Cameron & Barkley Co.
Ga.,	*Atlanta,* J. M. Tull Rub. & Sup. Co.
	Savannah, Georgia Supply Co.
Ill.,	*Chicago,* Samuel Harris & Co.
	Moline, Thomas Dunn & Sons
	Peoria, Hagerty Bros. Co.
Ind.,	*Evansville,* Evansville Supply Co.
	Fort Wayne, Fort Wayne Pipe & Supply Co.
	Indianapolis, Indianapolis Belting & Sup. Co.
Iowa,	*Des Moines,* Globe Machinery & Sup. Co.
Ky.,	*Louisville,* Neill-La Vielle Supply Co., Inc.
La.,	*New Orleans,* C. T. Patterson Co., Inc.
Me.,	*Portland,* W. L. Blake & Co., Inc.
Md.,	*Baltimore,* Carey Machinery & Sup. Co.
Mass.,	*Boston,* A. W. Chesterton Co.
	Holyoke, Chase & Cooledge Co.
	New Bedford, Russell, Milhench & Harrison Co., Inc.
	Pittsfield, Berkshire Mill Supply Co.
	Springfield, W. J. Foss Co.
	Worcester, Brierly-Lombard Co.
Mich.,	*Detroit,* The Charles A. Strelinger Co.
Minn.,	*Duluth,* Kelley-How-Thomson Co.
	St. Paul, R. B. Whitacre & Co., Inc.
Mo.,	*Kansas City,* Richards & Conover Hdwe. Co.
	St. Louis, Geller, Ward & Hasner Hdwe. Co.
Neb.,	*Omaha,* Interstate Mach. & Sup. Co.
N. J.,	*Elizabeth,* Hand Hardware Co.
	Newark, Johnson-Manderville Co.
	Passaic, H. W. Mills & Co., Inc.
	Paterson, H. W. Mills & Co., Inc.
	Perth Amboy, Perth Amboy Hdwe. Co.
	Trenton, Wiley-Hughes Supply Co., Inc.
N. Y.,	*Brooklyn,* Thos. W. Kiley & Co., Inc.
	Buffalo, Weed & Co.
	Jamestown, Clark Hardware Co.
	Kingston, Ulster Foundry Corp.
	Newburgh, W. L. Smith
	New York City, A. P. Dienst Co., Inc.
	Hansen & Yorke Co., Inc.
	The Williams & Wells Co.
	Rochester, Haverstick & Co., Inc.
	Syracuse, Syracuse Supply Co.
	Troy, Troy Belting & Supply Co.
N. C.,	*Durham,* Dillon Supply Co.
	Raleigh, Dillon Supply Co.
Ohio,	*Cincinnati,* The Wirthlin-Mann Co.
	Cleveland, The W. Bingham Co.
	Columbus, The Ross-Willoughby Co.
	Dayton, The Klinger-Dills Co.
	Springfield, The Ross-Willoughby Co.
	Toledo, Kirkby Machinery & Supply Co.
Okla.,	*Oklahoma City,* Mideke Supply Co.
	Tulsa, Machine Tool & Supply Co.
Ore.,	*Portland,* Woodbury & Co.
Penna.,	*Allentown,* Wm. H. Taylor & Co., Inc.
	Harrisburg, Appleby Bros. & Whittaker Co.
	Hazleton, Jere Woodring & Co.
	Lancaster, Reilly Bros. & Raub
	Philadelphia, Charles Bond Co.
	Pittsburgh, Somers, Fitler & Todd Co.
	Reading, Brown Engineering Co.
	Scranton, The Bittenbender Co., Inc.
	Wilkes-Barre, Eastern Penna. Supply Co.
	Williamsport, E. Keeler Co.
	York, York Machinery & Supply Co.
R. I.,	*Providence,* Belcher & Loomis Hdw. Co.
S. C.,	*Clinton,* Industrial Supply Co., Inc.
Tenn.,	*Chattanooga,* James Supply Co.
	Knoxville, Tennessee Mill and Mine Sup. Co.
	Memphis, Riechman-Crosby Co.
	Nashville, Nashville Machine & Supply Co.
Texas,	*Brownsville,* Alamo Iron Works
	Corpus Christi, Alamo Iron Works
	Dallas, Briggs-Weaver Machinery Co.
	El Paso, Ammex Equipment Co., Inc.
	Houston, Peden Iron & Steel Co.
	San Antonio, Alamo Iron Works
Utah,	*Salt Lake City,* Galigher Co.
Va.,	*Norfolk,* Empire Machinery & Supply Corp.
	Richmond, Smith-Courtney Co.
	Roanoke, Noland Co., Inc.
Vt.,	*Barre,* Casellini-Venable Corp.
Wash.,	*Seattle,* Industrial Products Co.
	Spokane, Jensen-Byrd Co.
Wis.,	*Milwaukee,* Shadbolt & Boyd Co.
Alberta,	*Calgary,* J. H. Ashdown Hdw. Co., Ltd.
	Edmonton, J. H. Ashdown Hdw. Co., Ltd.
B. C.,	*Vancouver,* Gordon & Belyea, Ltd.
Man.,	*Winnipeg,* J. H. Ashdown Hdw. Co., Ltd.
Ontario,	*Hamilton,* H. C. Burton & Co., Ltd.
Que.,	*Montreal,* Joseph Robb & Co., Ltd.
Sask.,	*Regina,* J. H. Ashdown Hdw. Co., Ltd.
	Saskatoon, J. H. Ashdown Hdw. Co. Ltd.
P. I.,	*Manila,* Atkins, Kroll & Co.

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Osborn brushes

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